# ANNUAL REPORT

OF THE

# CITY ENGINEER

OF

# TORONTO

FOR

# 1909

TORONTO:
THE CARSWELL CO., LIMITED, CITY PRINTERS, 19 DUNCAN, COR. ADELAIDE WEST
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HIGH PARK
QUEEN'S PARK

MOUNT PLEASANT CEMETERY
CANADIAN PACIFIC RAILWAY
ONTARIO NORTHERN RAILWAY
GRAND TRUNK RAILWAY
DON RIVER
TODMORDEN
CITY LIMITS
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GRAND TRUNK RAILWAY FREIGHT YARD
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HUMBER BAY
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HARBOUR
HUMBER BAY
LONG POND
ISLAND PARK
PLAN
of the
CITY OF TORONTO
SCALE. 2000 FEET TO 1 INCH
ALEXANDER & CABLE LITH. CO. (L)
ANNEXATIONS

## REFERENCE

| | | | Ac. |
|---|---|---|---|
| 1 | Original City Limits, - - - | 1834-1883, Area | 5736.6 |
| 2 | Yorkville, 46 Vic. Chap. 46, - | Feb. 1, 1883, " | 543.6 |
| 3 | Brockton, 47 Vic. Chap. 59, - | Mar. 25, 1884, " | 1028.9 |
| 4 | Riverside, 47 Vic. Chap. 59, - | Mar. 25, 1884, " | 1318.9 |
| 5 | North Rosedale, Ont., Proc., | Sep. 22, 1886, " Jan. 3, 1887, | 99.0 |
| 6 | Strip North of Queen, Ont., Proc., | Jan. 3, 1887, " | 57.8 |
| 7 | Annex " " | " " " " | 209.7 |
| 8 | North " " | Jan. 2, 1888, " | 49.7 |
| 9 | North " " | " " " " | 17.0 |
| 10 | North-west " " | " " " " | 1052.9 |
| 11 | West " " | " " " " | 91.6 |
| 12 | Parkdale, 52 Vic. Chap. 73 | Mar. 23, 1889, " | 650.2 |
| 13 | Greenwoods Side Line, Ont., Proc., | Jan. 6, 1890, " | 35.3 |
| 14 | Lake Shore Rd., 56 Vic. Chap. 85, | May 27, 1893, " | 12.7 |
| 15 | Summerhill Ave., Ont., Proc., | Oct. 2, 1903, " | 3.6 |
| 16 | Pt. Humber Bay & Lake W. of Island | " " " | |
| 17 | Avenue Rd., Ont., Proc., | Mar. 3, 1905, " | 144.7 |
| 18 | Rosedale, Ont., Proc., | Nov. 15, 1905, " | 244.1 |
| 19 | Annex W. of Avenue Rd., Ont. Ry. and Mun. Bd. | Dec. 10, 1906, " | 28.2 |
| 20 | Deer Park, Ont. Ry. and Mun. Bd., | Dec. 15, 1908, " | 243.0 |
| 21 | Baldwin Estate, " " " | " " " " | 51.3 |
| 22 | East Toronto, " " " | " " " " | 535.4 |
| 23 | Wychwood and Bracondale, " | Feb. 1, 1909, " | 567.2 |
| 24 | West Toronto, Ont., Proc., | May 1, 1909, " | 1500.0 |
| 25 | Midway, Ont. Ry. and Mun. Bd., | Dec. 15, 1909, " | 1353.7 |
| 26 | Balmy Beach, " " " | " " " " | 187.0 |
| 27 | Earlscourt and Dovercourt, " | Jan. 10, 1910, " | 639.1 |

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# ANNUAL REPORT

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# CITY ENGINEER

OF TORONTO FOR 1909

TORONTO:
The Carswell Co., Limited, City Printers, Cor. Adelaide and Duncan Sts.
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# TORONTO.

TOPOGRAPHY.—The City of Toronto is situated upon the northern shore of Lake Ontario, about forty miles easterly of its western terminus. It lies in latitude 43° 39′ 10″ north, longitude 79° 23′ west, on a plateau gently ascending north for a distance of three miles, where an altitude of about 220 feet above the lake level is reached. It extends about eight miles along the lake, and is generally level, with slight depressions at points where minor water courses previously existed. The harbor is formed in front of the City by a sandy island, which lies to the south, at a distance of about a mile and a half.

Toronto is the capital of the Province of Ontario, and in it are situated the Provincial Parliament Buildings and Government House, the residence of the Lieutenant-Governor of the Province.

STATISTICS.

AREA.—The area within the City limits, not including the portions of the City land covered by water, is 28 square miles.

POPULATION.—The population of the City is about 350,000.

PUBLIC STREETS AND LANES.—Within the City limits there are 407.57 miles of streets and 115 miles of lanes, of which 262.13 miles of streets are paved, and 145.44 miles unpaved.

PAVEMENTS AND ROADWAYS.—

| | |
|---|---|
| Asphalt | 118.44 miles |
| Cedar block | 17.71 " |
| Brick | 25.41 " |
| Macadam | 45.91 " |
| Wood on concrete | 0.49 " |
| Stone and scoria block | 2.34 " |
| Gravel | 21.35 " |

PAVEMENTS AND ROADWAYS.—*Continued.*

| | |
|---|---|
| Bitulithic | 20.68 miles |
| Tar macadam | 3.88 " |
| Concrete | 1.98 " |
| Asphalt block | 4.14 " |
| Unpaved | 145.44 " |

SIDEWALKS.—

| | |
|---|---|
| Stone flag | 1.821 miles |
| Concrete | 397.424 " |
| Brick | 3.66 " |
| Wood | 50.00 " |

SEWERAGE.—The City is drained by what is known as the combined system of sewers, and there are 298 556 miles of sewers.

An extensive trunk sewerage system is now in course of construction, the total approximate cost of which will be $2,400,000.

WATER WORKS.—The Water Works system is owned and operated by the City, the supply being obtained from Lake Ontario through a 6-ft. steel conduit laid across Toronto Island to the south tunnel shaft near Hanlan's Point, and from thence through a tunnel 8 ft. 4 in. in diam., laid under Toronto Bay to the Main Pumping Station on the water front, the water being pumped through the City mains, the surplus going to the Reservoir situated north of the north City limits. Cost of system to date, about $7,000,000.

A large and modern slow Sand Filtration Plant is now under construction at Toronto Island, which will cost approximately $750,000.

STATIONS AND ENGINES.—

*Main Pumping Station.*

| | | | | |
|---|---|---|---|---|
| No. 1 | Engine, | 4,000,000 gals. | capacity, | 24 hours |
| " 2 | " | 8,000,000 " | " | " |
| " 4 | " | 10,000,000 " | " | " |
| " 5 | " | 10,000,000 " | " | " |
| " 6 | " | 15,000,000 " | " | " |
| " 7 | " | 15,000,000 " | under construction. | |

*High Level Pumping Station.*—Four engines with a total capacity of 18,000,000 gallons in 24 hours.

*Island Pumping Station.*—Two engines. 1,500 000 gallons capacity in 24 hours.

370.985 miles of water mains, including annexed districts.
71,068 water services.
4,246 street hydrants.
3,469 valves.
2,978 meters in use.

WATER RATES.—Average schedule, $3\frac{3}{4}$ cents per 1,000 gallons, and by meter, $10\frac{1}{2}$ cents per 1,000 gallons.

70,000 water takers.
Pressure—Domestic and fire, 50 to 90 lbs.
Average quantity pumped in 24 hours, 31,267,905 gallons.
Water consumed annually, 11,419,392,921 gallons.
Fuel used—soft coal screenings.
Cost of fuel during 1909, $47,615.39.

| | |
|---|---|
| General receipts | $ 1,917 97 |
| Revenue collected in 1909 by schedule rate | 298,291 00 |
| " " " meter rate | 251,944 68 |
| Charges made against different branches of City service for water used | 89,289 00 |
| Total | $641,442 65 |
| Operating expenses, including cost of collecting rates and debt charges | $628,022 16 |

FIRE PROTECTION.—

261 officers and men in brigade.
105 horses.
74 pieces of apparatus for various purposes.
4,246 fire hydrants.
22 fire stations.
9 steam fire engines.

Police Protection.—

475 officers and men.
1 Squad of 14 mounted men and two sergeants.
4 patrol wagons.
1 prison van.
1 headquarters and 10 stations.
137 patrol signal boxes.

Military.—There are two regular corps stationed in the City (one mounted and one infantry), at Stanley Barracks, near the site of old Fort Rouille, and seven militia corps (two mounted and five infantry), all of which have first-class bands and the use of well-equipped and commodious Armouries.

Lighting.—There are two lighting companies doing business in the City. The Consumers' Gas Co. have 394 miles of mains, and 58,513 consumers, and supply gas for 1,089 street lights. Toronto Electric Light Company have 1,835 street electric arc lights, 1,750 private business arc lights, about 425,000 private business incandescent electric lights, and also 2,260 miles of overhead and underground wire, and 270 miles of underground conduit.

Telephone and Telegraph Service.—The Bell Telephone Company is the only company doing business in the City. They have 31,000 telephones in use, 33,000 miles of overhead, 62,000 miles of underground wires, 30 miles of underground conduit, and 275 miles of ducts.

There are two telegraph companies doing business in the City, the Great North-Western Telegraph Company, with 90 sets of instruments and 280 miles of overhead wires; and the Canadian Pacific Railway Telegraph Company.

Public Parks.—The Public Parks of the City are under the control of the City Council. There are 40 public parks, having a total area of about 1,640¼ acres.

Education.—The educational system is under the direction of the Board of Education and the Separate School Board. There are

74 public schools, having a total of 801 rooms, with a staff of 894 principals and teachers, and 140 Kindergarten teachers. Registered pupils in Public Schools, 46,956. Four collegiate institutes, 3 high schools and 1 technical high school, having a total of 89 class rooms, with a staff of 116 principals and teachers.

Eighteen separate schools, with a staff of 99 principals and teachers.

2 Industrial Schools (Protestant).
1 Industrial School (R. C.)
40 Colleges, Seminaries and Pay Schools.
1 Technical School—Number of rooms, 24; Number of Teachers, 51.
5 Universities.
3 Cathedrals of all denominations.
238 Churches of all denominations.
9 Synagogues and several Jewish Churches.
48 Missions.
5 Mission Training Schools.
9 Convents.

Public Libraries.—There is a Reference Library of 85,000 volumes in the finest library building in Canada, erected through the generosity of Mr. Andrew Carnegie; a main Circulating Public Library, and six Branch Circulating Libraries, all under the control of the Public Library Board. In these Circulating Libraries there are about 85,000 volumes, and the yearly circulation is about 550,000 volumes.

Public Institutions.—

62 Hospitals, Asylums and Public Homes.
1 Free Public Art Gallery and Museum.
1 Free Public Bath House, erected at a cost of $45,000.
4 Free Bathing Stations.
3 Institutions for destitute and criminal classes.

Law.—Toronto is the centre of the Law System of the Province of Ontario, having 27 Law Courts within its limits.

AMUSEMENTS.—

8 Theatres.
52 Music, Concert Halls and Vaudeville Houses.
Zoological Gardens.
238 Public Buildings, Halls, etc.

PUBLIC ACCOMMODATION.—

194 Hotels.
3,600 Boarding Houses.

RAILWAYS.—There are three steam railroads making Toronto a divisional point, namely, the Grand Trunk Railway, Canadian Pacific Railway and Canadian Northern Ontario Railway. The mileage of each within the City limits is respectively as follows:—90, 36, 10 miles.

121 Passenger trains enter and leave the City daily.

200 Freight trains enter and leave the City daily.

In addition four Electrical Lines enter the City:—The Toronto and York Radials, three in number, and the Toronto Suburban Railway.

The Toronto and York Radials serve on the East the district from corner of Queen and Kingston Roads to Scarboro. On the North from intersection of C.P.R., North line through City at Yonge Street and North to Jackson's Point on Lake Simcoe, via Yonge Street. On the West from Sunnyside to Port Credit via Lake Shore Road. Total mileage 72.43 as single track. Number of paying passengers carried during year, 3,595,892.

The Toronto Suburban serves the district from North-west of Toronto, extending from corner of Keele and Dundas Streets to Lambton on the West and Weston in North-westerly direction, also Davenport Road line in suburbs of City. Mileage operated 9.84 miles. Number of paying passengers during year 891,203.

The Toronto Railway Company has the exclusive franchise for operating a street railway system within the City limits. They have 107.24 miles of tracks on the streets and 7.42 miles in the sheds, etc.: about 663 motors and 169 trailers in operation, and carried during 1909 a total of 136,259,587 passengers, of which 98,117,991 were paid passengers, and 38,151,596 were transfers. $3,926,828 were received by the Company from the sale of tickets during the year, and the revenue derived by the City from the Company was $589,955.11, for 1909.

SHIPPING.—Owing to the favorable situation of Toronto on the shores of Lake Ontario and Toronto Bay, an extensive trade is carried on by various shipping companies and vessel owners in freight and passengers.

BUSINESS.—

6 daily newspapers; 49 weekly; 20 semi-monthly; 76 monthly and 8 quarterly newspapers and periodicals: 1 directory company.
5 Public markets.
36 Banks, not including branches.
1,850 Factories and manufactories.
396 Wholesale houses.
10 Departmental stores.
8,300 Miscellaneous business companies, corporations and stores.

SANITATION.—

*Street Cleaning, Watering and Scavenging.*—A modern and complete system of street cleaning, watering and scavenging is owned and operated by the city.

The supervision of the sanitary requirements of the City is under the control of the Local Board of Health.

The foregoing brief review of Toronto is annually compiled by

GEO. J. CASTLE,
*Secretary to City Engineer.*

Past City Engineers of Toronto.—

1840-1842, Thomas Young.
1843-1852, John G. Howard.
1853, William Thomas.
1854, John G. Howard.
1855, William Kingsford.
1856, Thomas H. Harrison.
1857-1858, Thomas Booth.
1859-1860, Alfred Brunel.
1861-1870, J. H. Bennett.
1871-Oct., 1875, Chas. W. Johnston.
Oct. 1875-July, 1880, Frank Shanly.
Sept. 1880-July, 1883, R. J. Brough.
Oct. 1883-1889, Charles Sproatt.
1890-Sept., 1891, W. T. Jennings.
Sept. 1891-May, 1892, Granville C. Cunningham.
May, 1892-Jan., 1898, E. H. Keating.

# ANNUAL REPORT

OF THE

# CITY ENGINEER

OF THE

# CITY OF TORONTO

## FOR THE YEAR 1909.

---

CITY ENGINEER'S OFFICE,
Toronto, December 31st, 1909.

*To His Worship the Mayor and Members of the Council of the Corporation of the City of Toronto:*

GENTLEMEN,—In compliance with By-law No. 2534, I have the honor to lay before you the Annual Report of the Department for the year ending 31st December, 1909, setting forth the various works carried out during the year, with details of cost of construction, and suggestions and recommendations as to new works and improvements required.

OFFICIAL STAFF.

City Engineer ..... Chas. H. Rust, M. Can. Soc. C.E., M. Am. Soc. C.E.
Deputy City Engineer ..... C. L. Fellowes, M.Can.Soc.C.E.
Assistant City Engineer ..... T. S. Scott, A.M.Can.Soc.C.E.
Engineer in charge of Electrical Department. K.L.Aitken, A.M.Can.Soc.C.E.
Asst. Engineer in charge of Sewers..... J. D. Shields, M.Can.Soc.C.E.
Asst. Engineer in charge of Roadways, outside work ..... G. G. Powell, A.M. Can. Soc. C.E.
Asst. Engineer in charge of Roadways, Office work ..... M. A. Stewart.
*Asst. Engineer in charge of Bridges..... John Williams, M. Can. Soc. C.E.
Asst. Engineer in charge of Bridges..... R. E. Chadwick.
Asst. Engineer in charge of Main Drainage work ..... A. C. D. Blanchard, A.M. Can. Soc. C.E., A.M. Am. Soc. C.E.

---

*John Williams, deceased May 1st, 1909.

Asst. Engineer in charge of Main Drainage work ..... F. W. Thorold.
Accountant ..... Wm. McCartney.
Secretary, Committee on Works ..... A. H. Clarke.
Secretary, City Engineer ..... Geo. J. Castle.
Chief Clerk ..... H. M. Berryman.
Chief Engineer Main Pumping Station..... Alex. McRae.
Chief Engineer High Level Pumping Station.. Thos. Walsh.
Resident Engineer, Filtration Plant, Island... F. F. Longley, A.M. Am. Soc. C.E.

## FINANCIAL.

During the year just closed the amount of money expended and the work carried out exceeds any previous year, and I am pleased to point out to your Council that most of the work has been of a permanent character.

The total expenditure of the Department, including Water Works, amounted to $2,805,781.09, which was divided as follows:

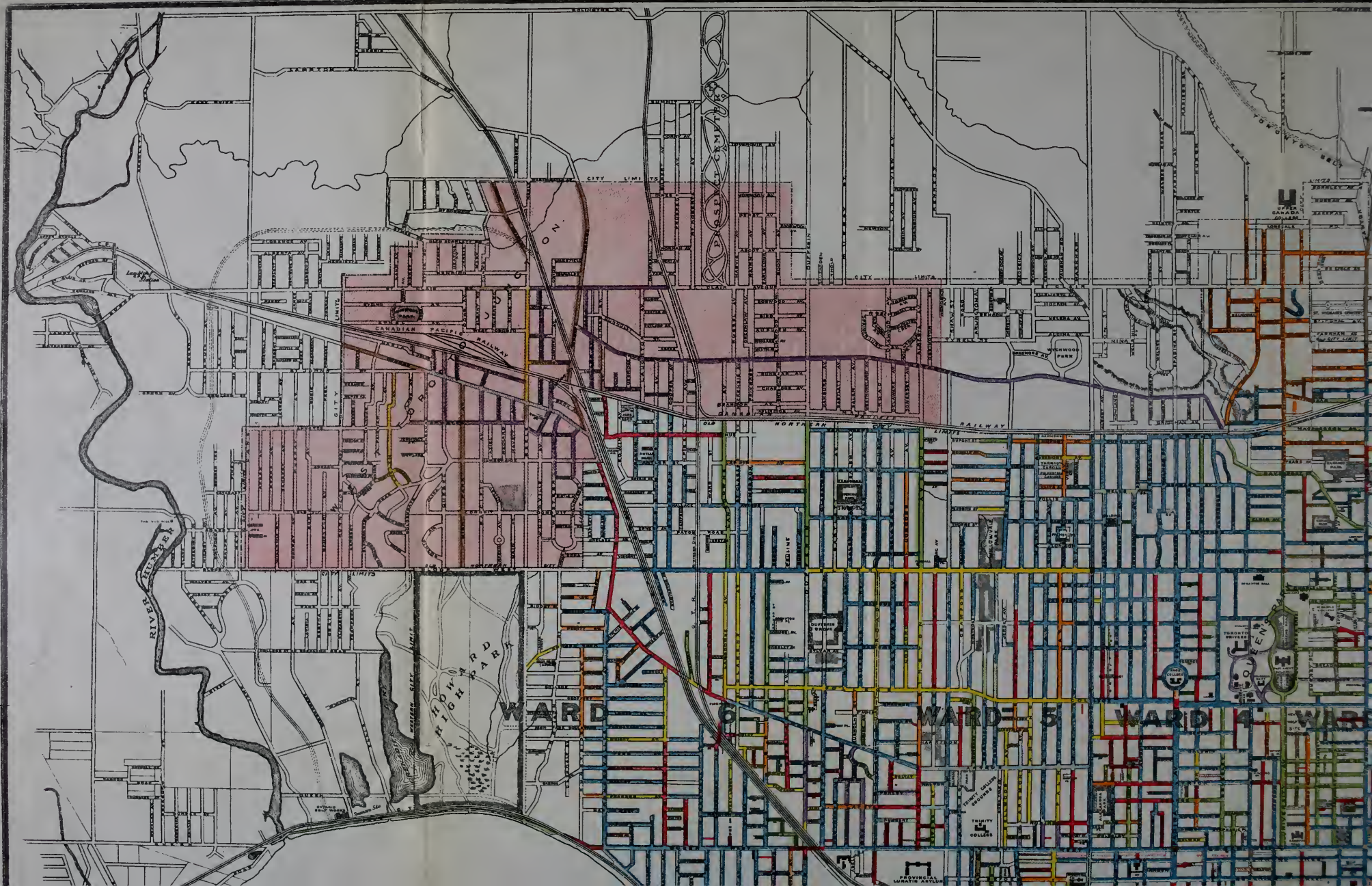
| | |
|---|---|
| Water Works ..... | $737,504 51 |
| General and special work ..... | 718,456 67 |
| Street Railway track allowance pavements... | 174,810 82 |
| Local Improvements ..... | 1,165,407 93 |
| Island Works ..... | 9,601 16 |
| Total..... | $2,805,781 09 |

Expenditure upon Local Improvements was divided as follows:

| | |
|---|---|
| Roadways ..... | $677,556 01 |
| Sidewalks ..... | 234,852 78 |
| Curbs ..... | 12,774 37 |
| Sewers ..... | 89,061 14 |
| Street openings, extensions, etc..... | 151,163 63 |
| Total..... | $1,165,407 93 |

## ORGANIZATION.

At the beginning of the year there was considerable discussion as to increasing the efficiency of the Department. Some members of the Council suggested that the City Engineer should be made Commissioner of Public Works. This did not meet with favor from the Head of the Department, and an alternative proposition was made that all that was necessary was the appointment of another assistant, who could relieve the Engineer of a large amount of detail work, which was taking up a great deal of his time and allowing him very little scope for dealing with


WARD 6
WARD 5
WARD 4
CANADIAN PACIFIC RAILWAY
NORTHERN PACIFIC RAILWAY
CITY LIMITS
RIVER HUMBER
HOWARD PARK
QUEEN'S PARK
TRINITY COLLEGE GROUNDS
TRINITY COLLEGE
PROVINCIAL LUNATIC ASYLUM
TORONTO PRISON
UPPER CANADA COLLEGE
WYCHWOOD PARK
DUFFERIN GROVE

MOUNT PLEASANT CEMETERY

CANADIAN PACIFIC RAILWAY. (Ont. & Quebec Div.)

ONTARIO NORTHERN RAILWAY

CANADIAN

RAILWAY

GRAND TRUNK RAILWAY

RAILWAY

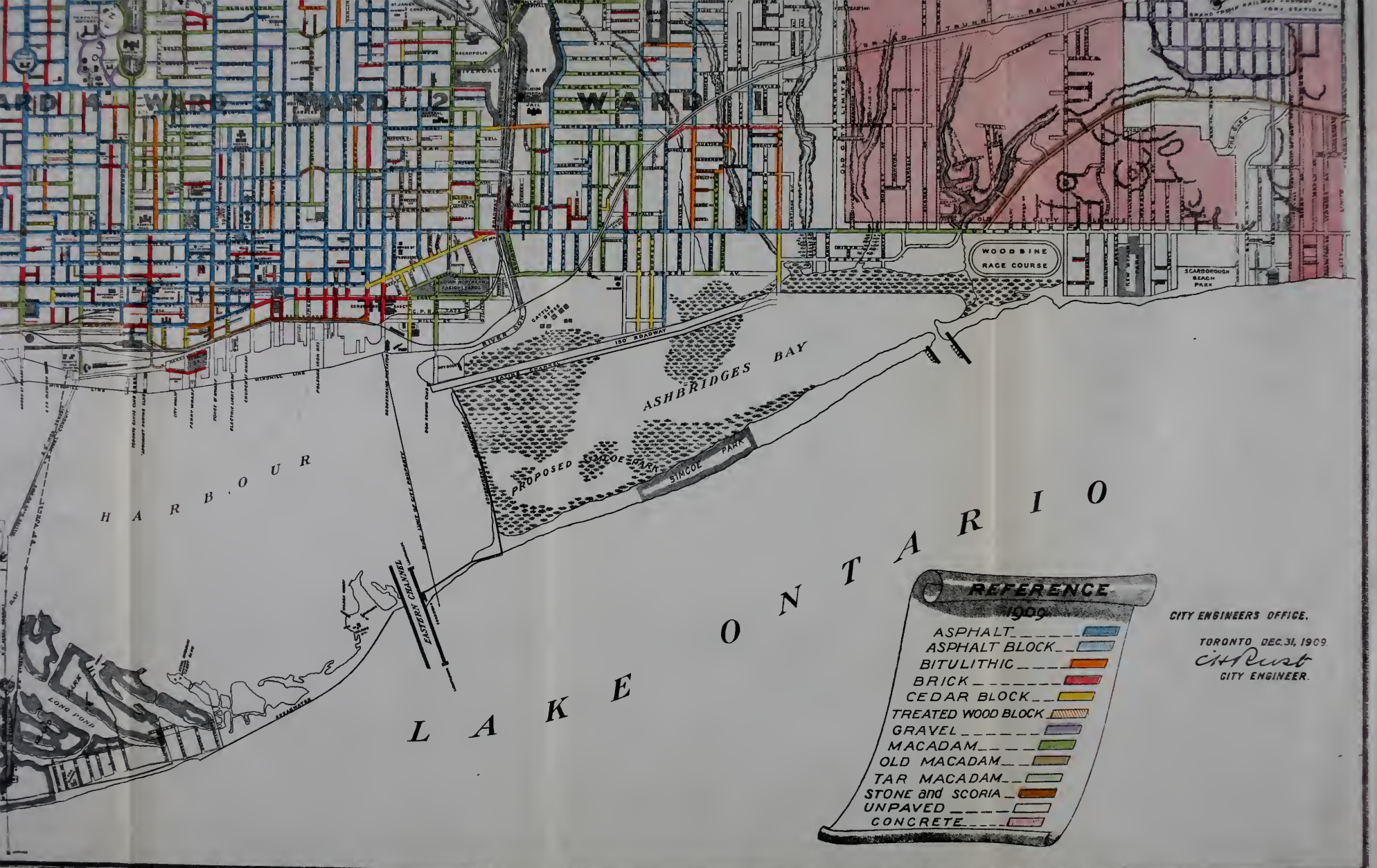
RAILWAY

# PLAN
of the
# CITY OF TORONTO

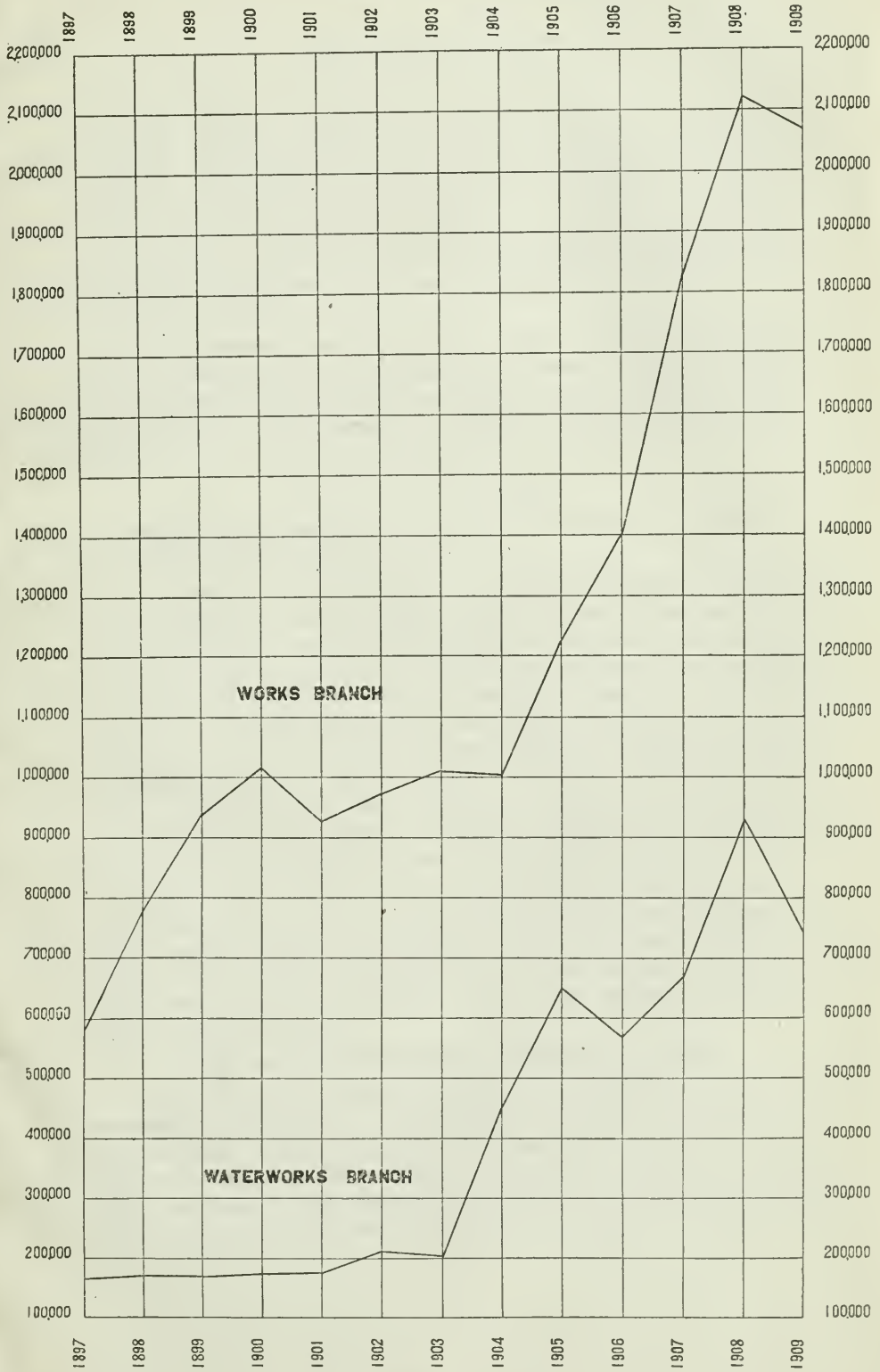
SCALE. 2000 FEET TO 1 INCH

ALEXANDER & CARRE LITH. CO. TO.

RECENT ANNEXATIONS SHEWN IN RED


WARD 3
WARD 2
WARD 1
WOODBINE RACE COURSE
SCARBOROUGH BEACH PARK
RIVER DON
150' ROADWAY
ASHBRIDGES BAY
PROPOSED SIMCOE PARK
SIMCOE PARK
HARBOUR
EASTERN CHANNEL
LONG POND
LAKE ONTARIO
REFERENCE 1909
ASPHALT
ASPHALT BLOCK
BITULITHIC
BRICK
CEDAR BLOCK
TREATED WOOD BLOCK
GRAVEL
MACADAM
OLD MACADAM
TAR MACADAM
STONE and SCORIA
UNPAVED
CONCRETE
CITY ENGINEERS OFFICE.
TORONTO DEC. 31, 1909.
CITY ENGINEER.

# DIAGRAM OF EXPENDITURE



the bigger problems which now confront the City, and the Engineer's suggestion was acted upon, and Mr. T. S. Scott was appointed Principal Assistant. Immediately upon assuming office Mr. Scott was placed in charge of roadways, sewers and bridges, and the various assistants reported directly to him. The results so far have been very satisfactory, and a diagram is attached showing the organization of the Department as at present constituted, and I cannot suggest that any further change be made at present.

The Department have now in their employ a very efficient staff of trained assistants, who are well qualified, by reason of technical training and experience, to design and supervise the various works now in progress, and it is in the interests of the City to see that these men receive remuneration in keeping with their work.

## DAY LABOR WORK.

During the past season a large amount of work has been carried out by the Department by day labor.

The Department claim that by the terms of the Manual, referring to day labor work, the City Engineer has the power to purchase all the material required to enable him to complete the work in a proper manner, and while, as far as possible, contracts are entered into in the beginning of the year for nearly all the material required, in some cases it has been impossible to procure satisfactory tenders, and when the accounts went before the Council the Department was criticised for purchasing material exceeding two hundred dollars, without a contract. Where the Department is carrying on such heavy work, and so much of it by day labor, there should be an amendment or alteration made giving the Engineer more latitude so that he can properly compete with contractors.

A great deal more work, such as sidewalks and roadways, could be constructed by day labor if the Department were better equipped. A gravel, sand pit, and quarry should be purchased, also an additional asphalt plant should be erected in the north-west part of the City. With these additions to the Department, I am satisfied a still larger saving could be effected.

## RENTALS FOR AREAS AND OTHER PRIVILEGES.

While the revenue derived for area rentals during the past year amounted to $7,082.36, a much larger sum could be obtained by increasing these rentals, especially in the business districts. Four cents per square foot is a totally inadequate rental for privileges, especially where the space is used under the sidewalk for storage or boiler room. This is the only revenue derived from the occupancy or for the use of

any portion of the street. This revenue could be very much augmented by making a charge for marquise, over-hanging signs (electrical or otherwise), use of porches, scales, encroachments upon the streets, in fact any use of the public streets by private corporations should be liable to a rental.

For instance, the Department has been asked to grant permission to certain persons to use an extensive area under the sidewalk at the corner of King and Yonge Streets. The rate now fixed by the By-law is four cents per foot per annum. This is totally inadequate for such valuable privileges, such as the use of sidewalk space for storing or boiler rooms.

## PROGRESS ESTIMATES.

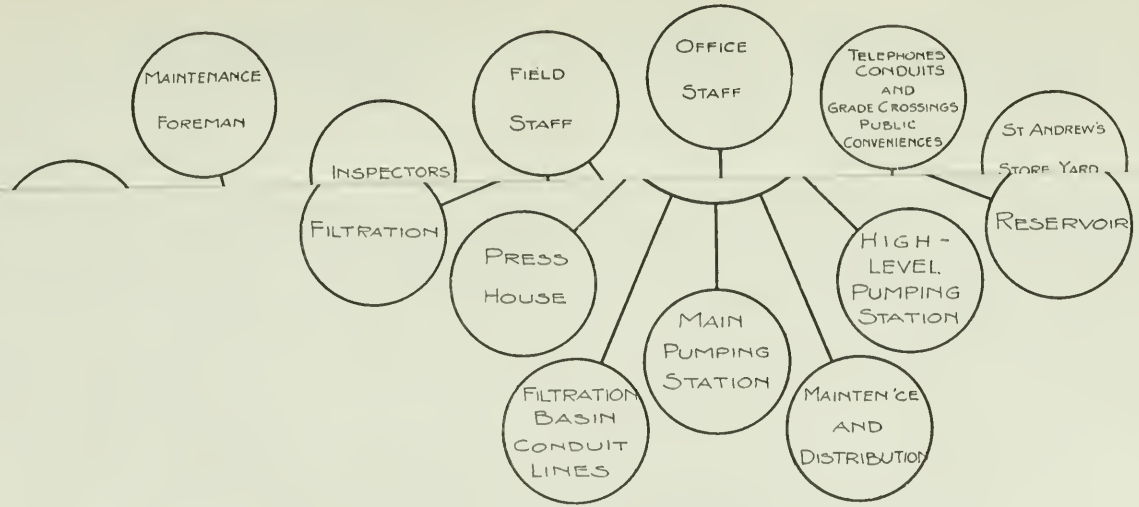
Arrangements should be made so that contractors can be paid their progress estimates without the formality of going first to the Committee on Works, Board of Control and Council. It is very often three weeks after the estimate is endorsed by the Engineer before the contractor is able to procure his money. This is a considerable hindrance to contractors with small capital. In the summer time, during the vacation of the Council, these estimates are paid within one or two days after being made out, and this method should be followed during the whole year.

## OFFICE ACCOMMODATION.

The increase in the work of the Department, caused by the large number of works now under way in the recent annexation to the City of a very large additional territory, has resulted in considerable congestion in the office. We have not nearly sufficient space for the proper, economical and efficient carrying on of the work. The present accommodation is totally inadequate, and a very large number of valuable plans and records are left unprotected from fire. If, as has been suggested, the School Board are considering the advisability of removing their office from the City Hall, the whole of the top floor on the south side should be transferred into office room for the Engineer's Department.

## OLD EMPLOYEES.

At present the City has engaged as laborers and foremen a number of old employees, who have been employed by the City for a great many years. These men have now come to that time of life when they are not able to perform the work that a younger or more active man can, and the wages these men have been paid are such that they have not been able to save a sufficient amount to keep them in their old age. It would, therefore, be a great hardship to dispense with their services, as their age is such that it would be impossible for them to procure employment




ORGANIZATION 1909

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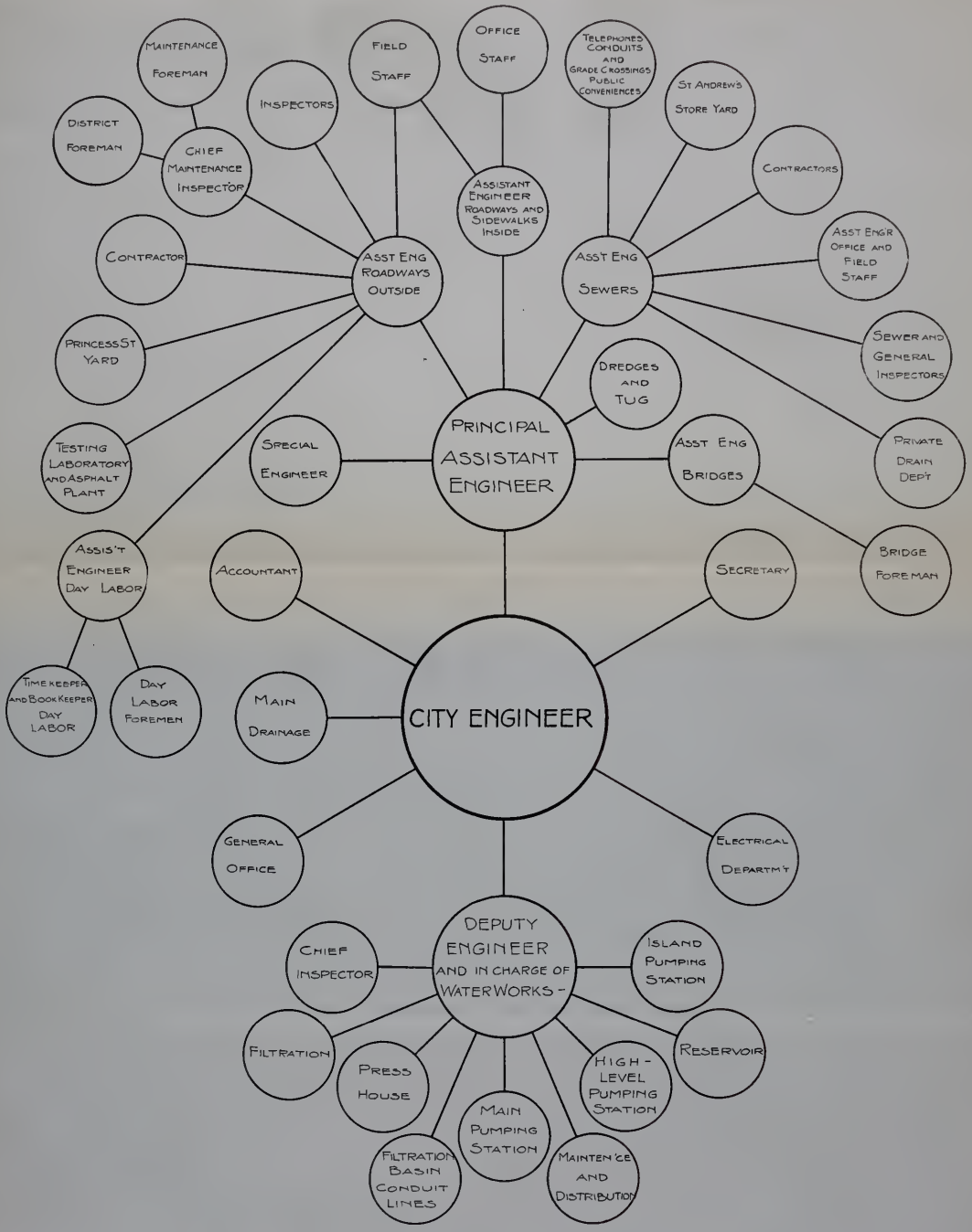



ORGANIZATION 1909

elsewhere, and some method should be found whereby men, who have been working for the City for a period of twenty-five or thirty years, when they reach a certain age, should be entitled to a retiring allowance, and it is a mistake to appoint men as permanent laborers or foremen who are over forty-five years of age.

## NEW TERRITORY.

During the past year the following additions have been made to the City.

Wychwood and Bracondale, February 1st, 1909.

West Toronto, May 1st, 1909.

Midway, December 15th, 1909.

Balmy Beach, December 15th, 1909.

This adds to the City area a total of about 3,600 acres, and 51 miles of City streets. Nearly all the roadways in these districts are quite unimproved.

## TEMPERATURE AND RAINFALL.

Through the courtesy of Mr. R. F. Stupart, Director of the Meteorological Department, a table is attached showing the temperature and rainfall during the year:

STATEMENT OF MONTHLY TEMPERATURE AND PRECIPITATION AT TORONTO FOR 1909.

| Month. | Mean Temperature. | Precipitation. | | |
|---|---|---|---|---|
| | | Rain. | Snow. | Total. |
| | ° | in. | in. | in. |
| January | 26.4 | 0.880 | 17.8 | 2.660 |
| February | 26.7 | 1.625 | 15.5 | 3.175 |
| March | 29.9 | 1.180 | 15.9 | 2.770 |
| April | 40.9 | 4.895 | 5.1 | 5.405 |
| May | 53.7 | 3.710 | ..... | 3.790 |
| June | 65.5 | 1.205 | ..... | 1.205 |
| July | 67.7 | 3.475 | ..... | 3.475 |
| August | 69.1 | 1.330 | ..... | 1.330 |
| September | 60.3 | 1.960 | ..... | 1.960 |
| October | 46.2 | 1.125 | 0.1 | 1.135 |
| November | 40.6 | 3.135 | 2.3 | 3.365 |
| December | 25.9 | 1.490 | 11.6 | 2.650 |
| Year | 46.1 | 26.010 | 69.1 | 32.920 |

NOTE.—Ten inches of snow equals one inch of rain.

## RECORD OF RAINFALL AT RESERVOIR GROUNDS FOR THE YEAR 1909.

| Day. | Jan. | Feb. | March | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | in. | in. | in. | in. | in. | in. | in. | in. | in. | in. | in. | in. | |
| 1st | | | | | 0 04 | | | | | 0.05 | | | |
| 2nd | | | | 0.06 | | | | | | | 0.08 | | |
| 3rd | | | | 0.15 | 0.08 | | 0.13 | | | | | | |
| 4th | | | | | | | | | 0.16 | | 0.02 | | |
| 5th | 0.23 | | | | | | | | | | | | |
| 6th | | 0.08 | | | | | | | | | | | |
| 7th | | | | 0.28 | 0.18 | | | | | | | 0.29 | |
| 8th | | | | | | | | | | | 0.66 | | |
| 9th | | | | | | | | | 0.02 | | | | |
| 10th | 0.02 | 0.39 | 0.42 | | 1.06 | 0.08 | | | | | | | |
| 11th | | | | | 0.46 | | 0.87 | | | | | | |
| 12th | | | | | | | 0.40 | | | 0.22 | 0.03 | | |
| 13th | | | | | 0.23 | 0.32 | | | | | | | |
| 14th | | | | 0.63 | | 0.07 | | | | | | 0.44 | |
| 15th | | | | | | | 0.14 | 0.81 | 0.41 | | 0.07 | | |
| 16th | | | | | 0.33 | | 0.27 | 0.23 | 0 03 | | | | |
| 17th | | | | 0.63 | 0.03 | 0.56 | | | | | 0.29 | | |
| 18th | | | | 0.17 | | | 0.24 | | | 0.17 | | | |
| 19th | | | | 0.84 | | | | | | | | | |
| 20th | | 0.21 | | | | | | | | | | | |
| 21st | | | | 0.63 | 0 02 | | | | | 0.40 | | | |
| 22nd | 0.31 | | | | | | | | | | | | |
| 23rd | 0 19 | | | | 0.04 | 0.16 | 0.77 | | | | 1.92 | | |
| 24th | | 0.91 | | | | | 0.11 | | 0.50 | 0.03 | | | |
| 25th | | | 0.70 | | | | 0.06 | | 0.12 | | | | |
| 26th | | | | | | | | | 0.26 | 0.14 | | | |
| 27th | | | | 0.26 | 0.80 | | | | | | | | |
| 28th | | | | | 0.02 | | | | | | 0.04 | | |
| 29th | | | | | | | | 0.25 | 0.12 | | | | |
| 30th | | | | 0.97 | | | | | | 0.06 | | | |
| 31st | | | | | | | | | | | | | |
| | 0.75 | 1.59 | 1.12 | 4.62 | 3.29 | 1.19 | 2.99 | 1.29 | 1.62 | 1.07 | 3.11 | 0.73 | 23.37 |

## RECORD OF SNOWFALL AT RESERVOIR GROUNDS FOR THE YEAR 1909.

| Day. | Jan. | Feb. | March | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | in. | in. | in | in. | | | | | | | in. | in. | |
| 1st | | | $\frac{3}{4}$ | | | | | | | | | | |
| 2nd | | | | | | | | | | | | | |
| 3rd | | $\frac{1}{4}$ | | | | | | | | | | | |
| 4th | | | 8 | | | | | | | | | | |
| 5th | | | | | | | | | | | | | |
| 6th | 1 | | | | | | | | | | | | |
| 7th | | | $\frac{3}{4}$ | | | | | | | | | | |
| 8th | $\frac{1}{2}$ | | | | | | | | | | | | |
| 9th | | | | $\frac{1}{2}$ | | | | | | | | | |
| 10th | | $1\frac{3}{4}$ | | | | | | | | | | | |
| 11th | | | | | | | | | | | | | |
| 12th | 4 | | | | | | | | | | | $2\frac{3}{4}$ | |
| 13th | $\frac{1}{4}$ | | | | | | | | | | | | |
| 14th | | | | | | | | | | | | $1\frac{3}{4}$ | |
| 15th | | $8\frac{3}{4}$ | | | | | | | | | | | |
| 16th | $4\frac{1}{2}$ | $\frac{1}{2}$ | $1\frac{1}{4}$ | | | | | | | | | | |
| 17th | | $2\frac{1}{4}$ | | | | | | | | | | $\frac{7}{8}$ | |
| 18th | | | | | | | | | | | $\frac{1}{8}$ | | |
| 19th | | | 2 | | | | | | | | | | |
| 20th | | | | | | | | | | | | | |
| 21st | | | | | | | | | | | | | |
| 22nd | | | | | | | | | | | | | |
| 23rd | | | | | | | | | | | | | |
| 24th | | | | | | | | | | | | | |
| 25th | | | | | | | | | | | | $4\frac{1}{2}$ | |
| 26th | | | | | | | | | | | | | |
| 27th | | | 1 | | | | | | | | | | |
| 28th | | | | | | | | | | | | | |
| 29th | | | | $2\frac{1}{8}$ | | | | | | | | | |
| 30th | $5\frac{3}{4}$ | | | | | | | | | | | | |
| 31st | | | | | | | | | | | | | |
| | 16 | $13\frac{1}{2}$ | $13\frac{3}{4}$ | $2\frac{5}{8}$ | | | | | | | $\frac{1}{8}$ | $9\frac{7}{8}$ | $55\frac{7}{8}$ |

## HYDRAULIC DREDGES.

During the year Dredges Nos. 1 and 2 were engaged at the Island making channels and filling in low land. Dredge No. 3, which was built specially for the Ashbridge's Bay Improvement, has been engaged upon that work, and during the past year the Don channel has been diverted into Ashbridge's Bay.

Some slight changes have been made in the management. Captain Corcoran, of Dredge No. 3, has been appointed superintendent of all the dredges, and I think this has resulted in a more careful supervision, and consequently more work has been performed by the dredges.

## EASTERN ENTRANCE TO EXHIBITION GROUNDS.

Unfortunately nothing has been accomplished in providing an additional entrance by way of Bathurst Street to the Exhibition Grounds, and, owing to the engineering difficulties in connection with the proposed bridge at Bathurst Street, which have arisen largely by reason of the order of the Board of Railway Commissioners that a headway of 22 feet 6 inches must be provided, this entrance has had to be abandoned. A suitable entrance at a somewhat slighter cost could be provided via Tecumseth Street, but so far the Toronto Railway Company has objected to this route.

## STREET RAILWAY MATTERS.

No progress has been made during the past year towards relieving the congestion which now exists, especially during the rush hours. This is the result of the City and the Toronto Railway Company failing to agree upon the various routes.

The Company have expressed a desire to construct certain extensions in the business districts, but, up to the present, have not been disposed to take up the matter of extensions in the outskirts. The matter is now before the Privy Council for final decision.

## TUBES.

The question of tubes has been considered by the City Council and the public, and during the coming year the probabilities are that this matter will receive some consideration.

There is one important feature in connection with street railway matters which requires some consideration, that is, the difference in the

gauge between the Toronto Railway Company's tracks and standard gauge, the Company's tracks being 4 feet 10⅞ inches, and it seems to me that before a complete system of radial railways entering the City can be established, steps should be taken to have the Company change their tracks to standard gauge.

## WATER WORKS.

### FINANCIAL.

The total expenditure for the year of the portion of the Water Works Department, which is under the control of the City Engineer, amounted to $737,504.51, divided as follows:

| | |
|---|---|
| Maintenance | $261,168 84 |
| Construction | 74,573 79 |
| Renewals | 6,708 22 |
| Special Works | 333,922 42 |
| Revenue Mains | 61,131 24 |

The expenditure of the Revenue and Collection Branch, under the control of the City Treasurer, amounted to $12,602.11.

### DISTRIBUTION.

95,777¾ feet of mains of various sizes have been laid during the past year. This is very much in excess of the amount laid in the preceding year. The total length of mains in use in the City is 341.532 miles.

### HOUSE SERVICES.

The number of house services laid during the year was 5,147, being an increase of 41 per cent. over last year.

### LEAKS ON MAINS.

There were 243 leaks on the mains, and the cost of repairing averaged $9.97 per leak. The average number of leaks per mile of distribution is 0.686, and the average cost per mile is $6.84.

### RESERVOIR.

The average depth of water in the reservoir was 17 feet 7 inches, equal to an elevation of 217 feet 7 inches above zero level of Lake Ontario. At this level the reservoir contains 27,012,740 Imperial gallons of water.

Owing to the difficulty of keeping up the supply it was impossible to clean out the reservoir this year.

### TEMPERATURE OF WATER.

The average temperature for the year taken at the City Hall tap was 44.75 degrees Fahrenheit. The highest temperature was 69 degrees Fahrenheit, on the 17th and 18th of August, and the lowest 36 degrees Fahrenheit on the 10th and 11th of January.

### MAIN PUMPING STATION.

At the Main Pumping Station it was decided to instal a new fifteen-million gallon engine, known as No. 7. The contract for this work has been awarded to the John Inglis Company, of this City, and, to provide accommodation for this engine, it was necessary to build an extension to the present engine house. The engine should be ready for operation early in May of the coming year. A new boiler room containing three 250-horse power water tube boilers for same has been completed. The repairs and raising of the present chimney has also been undertaken. This has resulted in much better draught to the furnaces of the boilers. The flooring of the high pressure engine room has been completed.

The average amount of water consumed per day during the year has been about thirty-one and a quarter million gallons, an increase over last year of over two million gallons per day.

### HIGH PRESSURE FIRE SYSTEM.

The High Pressure Fire System pumps have been in operation sixty-six times, but the Fire Department only found it necessary to use water upon two occasions.

Contracts have been awarded for the erection of a complete set of centrifugal pumps, electrically driven, at all the pumping stations, and we expect before the end of the coming year to do all our pumping by electric power procured from the Hydro-Electric Commission.

### HIGH LEVEL PUMPING STATION.

The second six-million gallon, triple expansion engine, the contract for which was awarded to the John Inglis Company, has been completed, and the three additional boilers installed.

## FILTRATION PLANT.

The plans for this work were prepared by Mr. Allen Hazen, of New York, and the contracts were awarded early in May for the supply of material and the construction of this plant. The total amount of the contract for filters is $568,128, and for material $65,077.

Owing to the fact that most of the foundations for the filter beds are placed below the level of the lake, it was decided to surround the entire site with a drainage canal, so as to lower the ground water level. Although considerable trouble was anticipated in being able to keep this water down, it was found that one centrifugal pump was amply sufficient to lower the water.

The office building, which is of concrete, has been practically completed, and the foundations for one of the filter beds has been excavated and concreted. The concrete foundation for the pumping station is also completed. The regulator houses between two groups of filters are now in progress, and the reinforced concrete pipe has been completed. While no concrete work could be proceeded with during the winter, it is proposed to go on with the laying of a large amount of pipe, which can be carried on during these months without any difficulty. Up to the present $90,974.94 has been expended upon this work.

## WASTE OF WATER.

I would recommend that your Council take steps to provide a sufficient sum of money to instal more meters, and also that an appropriation be made for a thorough examination of the water supply towards the prevention of waste.

In 1900, when the sum of two thousand dollars was set apart for this purpose, the results showed a saving of eighteen hundred dollars per annum in the cost of pumping in one small district of the City, and amply warrants your Council in appropriating a liberal sum for this purpose.

As the City are now constructing a filtration plant, and also providing for the disposal of sewage, which method of disposal involves the pumping of a portion of the sewage, it is absolutely necessary that some steps should be taken to curtail any unnecessary waste of water. If this was carried out, it might avoid the necessity of extending our present plant. Water should be as carefully watched as a gas or electric company watch their supply.

## ROADWAYS AND SIDEWALKS.

The total number of works undertaken and carried out by this branch of the Department, during the year, was 701, of which 489 were contract works, 158 carried out by day labor, and 54 were laid by private contract, under City supervision.

A summary of the work is as follows:

| | |
|---|---|
| Carried over from 1908 | 83 |
| Contract works | 489 |
| Day labor works | 158 |
| Private permanent works | 54 |
| Total | 701 |

The work done includes the construction of 36.347 miles of pavements of all classes, and 52.839 miles of sidewalks. In addition there were constructed, under special contracts, 7.919 miles of concrete curbing. The above mileage includes 3.118 miles of new track allowance construction, and 7.070 miles of track allowance reconstruction. Of the remaining 26.159 miles of pavement work all but 1.387 miles was of a permanent character.

As was the case last year, the asphalt pavement was the largest factor of the work, 15.411 miles being laid.

The system of carrying out the work by day labor by the Department was continued during the past year with very satisfactory results. The saving to the City was $10,812.25, which amount includes $1,914.50 for inspectors' wages.

In another part of this report I have referred to the advisability of further extending the day labor system.

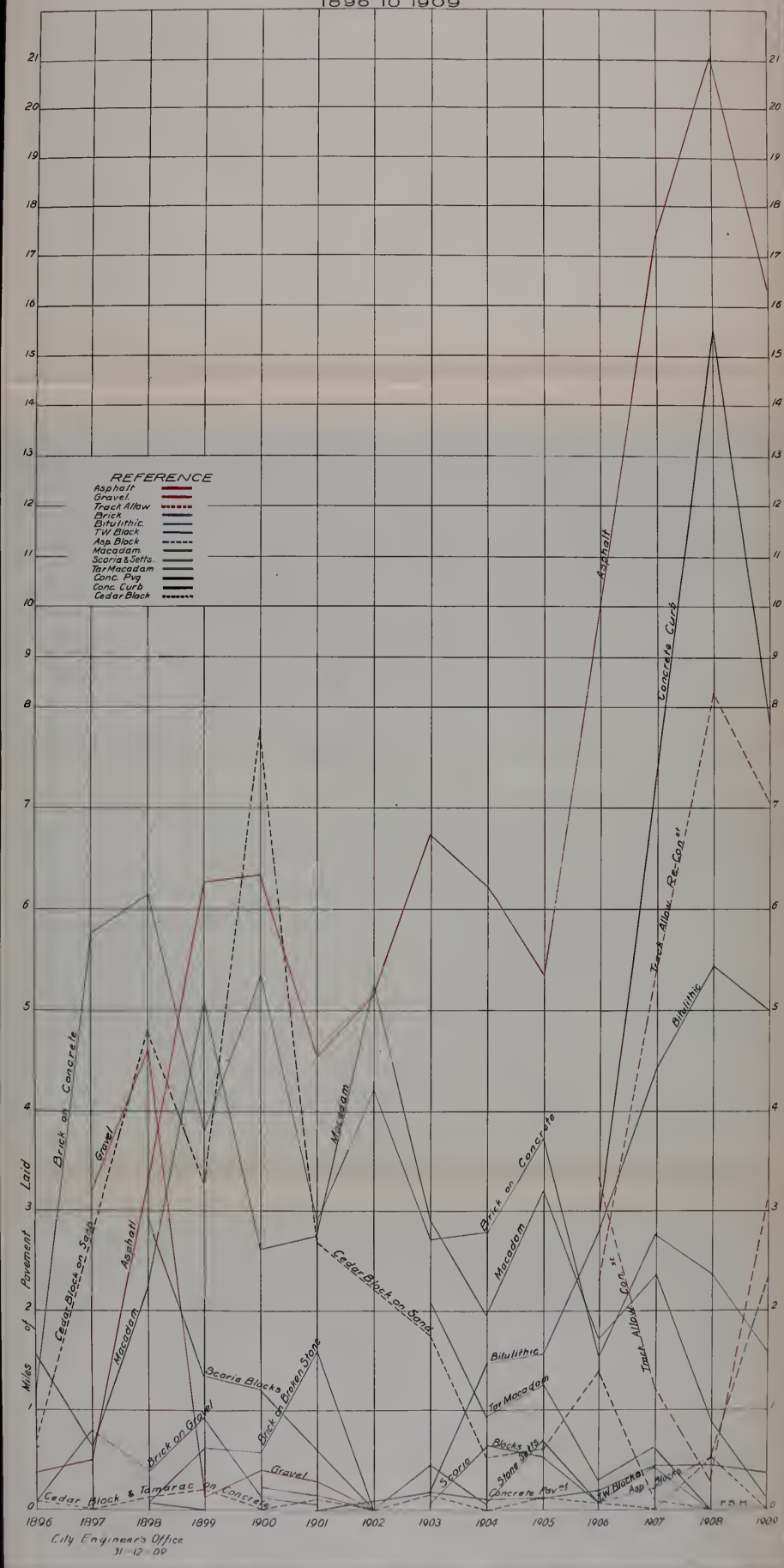
During the past year a brick pavement, which had been down for a number of years, and which was in fairly good condition, was, upon the request of the property owners, covered with a surface of asphalt, two inches of asphalt and one inch of binder being laid.

In 1909 the average price of heavy asphalt was $1.72 2/3 per square yard; medium, $1.60, and light, $1.28. This is a considerable reduction from the price paid the previous year.

DIAGRAM SHEWING FLUCTUATIONS OF PAVEMENTS

# DIAGRAM SHEWING FLUCTUATIONS OF PAVEMENTS

1896 to 1909




City Engineer's Office
31-12-09

The Department, in addition to constructing a number of asphalt streets, also did all the repairs which were necessary to the asphalt pavements upon which the contractor's guarantee had expired. The amount of repairs totalled 50,884 square yards, and the average cost per square yard was 54.2 cents.

### ASPHALT BLOCK PAVEMENTS.

During the year there were eleven asphalt block pavements, having a total yardage of 34,018 square yards constructed. Ten of these pavements were composed of three-inch blocks on a four-inch concrete base; the remaining one was a four-inch block on six-inch concrete base. This is a considerable increase over last year, and is due largely to the activity of the agents of the block manufacturing company, who circulate petitions among the property owners, and, if the petitions are sufficiently signed, the work is recommended by the Department.

### BITULITHIC PAVEMENTS.

A total of thirty-three pavements of this class of material were constructed, the yardage amounting to 73,775 square yards, and is very close to the amount laid in 1908. This work is all done upon petitions circulated by agents of the company.

### BRICK PAVEMENTS.

Only 21,241 square yards of this class of pavement were laid, and is due largely to the low price of asphalt, and to the objection, on the part of the public, to the pavement on account of its noise. It is a great pity that more of this pavement cannot be used, as it is one of the most satisfactory pavements we have.

### MACADAM ROADWAYS.

Only 1,170 square yards of macadam was laid during the year.

### CONCRETE PAVEMENTS.

The construction of concrete pavements was again confined to lanes upon which the traffic of wheeled vehicles is not excessive. A total of 2,883 square yards only was laid.

### TRACK ALLOWANCE CONSTRUCTION AND RECONSTRUCTION.

During the year about seven miles of this work was carried out. All the new work consists of 12 inches of concrete base with inset steel

ties. This form of construction, while giving good satisfaction, is noisy, owing to the rigidity of the foundation. It is the intention, during the coming season, to modify this, if possible, by the use of wooden ties or wooden blocks embedded in concrete.

### CONCRETE SIDEWALKS.

A total of 446 concrete sidewalks were constructed during the year, the total mileage laid being 52.839 miles. This brings the total mileage of concrete walks in the City to 397.424.

For further details in connection with this work, I would refer you to the very extensive and interesting report of the Assistant Engineer in charge of this work.

During the year the Department has been able, through the liberality of the Council, to keep the asphalt roads in very good condition, but the macadam roads, which have nearly all been constructed as local improvements (the payments for which have expired), have been rather neglected, owing to the Department not being granted a sufficient sum of money to keep them in proper repair. The sum of $6,000, which was the appropriation for last year for the maintenance of macadam roadways, is not sufficient to keep up a mileage of 45.9 of this class of pavement. The excellent condition of the macadam roads in England are often referred to by returning Torontonians. It may be of interest to know that in England, on macadam roads of all classes, an average of $520 per mile is spent for repairs. We spent much less on the macadam roads in this City, which are subject to a considerable amount of traffic.

### SEWERS.

During the year a total of 9.846 miles of sewers were constructed. This brings the total mileage of sewers within the City limits to 298.556.

### ROSEDALE CREEK SEWER EXTENSION.

During the year an extension was made to the sewer from Bedford Road to the Water Works High Level Pumping Station grounds. This will provide drainage facilities for the recently annexed district of Bracondale.

### PRIVATE DRAINS.

There were, during the year, 17.18 miles of private drains constructed. This refers to the drains constructed for different parties

from a connection with the main sewer, which is generally located in the centre of the street, to the property line. This work is done by the Department by day labor; the cost, however, is borne by the property owner.

## SYSTEM OF SEWERS FOR RECENTLY ANNEXED TERRITORY.

During the year the Department has been very busy in making surveys for a system of sewers for the recently annexed territory, including Deer Park and West Toronto. All the smaller sewers have been flushed and the larger sewers examined, and where repairs were required the same have been made.

## PUBLIC CONVENIENCES.

The total number of persons using the three lavatories were 1,258,626. A new combined men's and women's lavatory is now under construction at the corner of Broadview Avenue and Queen Street, and should be open early in 1910.

For further information in connection with this Department, I would refer you to the report of the Assistant Engineer in charge of this work.

## SEA WALL.

The work of constructing that portion of the sea wall opposite the Exhibition Grounds was completed by the contractor early in January. The total expenditure for this work was $3,221.50, being slightly less than the estimate for same.

A great deal of space between the wall and the shore has been filled in by garbage, street sweepings, excavations from cellars, and all the material from the Lansdowne Avenue Subway was deposited at this point.

The sea wall between Indian Road and the Humber River, a distance of 1,530 feet westerly from Indian Road, and being about 200 feet from the shore and parallel thereto, is under contract by Mr. Peter Arnot. This work was commenced in September, 1908, and was closed in November, and resumed again for the season on the 25th May, and was pushed steadily forward throughout the season.

The contractor was unfortunate in having forms, set ready for receiving concrete, carried away three times in succession by severe storms.

Up to the present time 1,386 lineal feet of face cribwork and 505 lineal feet of concrete superstructure is now in place.

From soundings made to date there appears to be little change in the contour of the sandy bottom outside of the wall, so that it is a little too early to draw conclusions regarding its ultimate stability.

The cost of the work up to the present has been $28,326.49.

## MAIN DRAINAGE.

The first contract for this important undertaking was awarded to the Godson Contracting Company for the construction of section No. 3 of the high level interceptor, commencing at the River Don and running westwardly. The progress up to the end of the year was 1,116 lineal feet, out of a total of 6,426 feet, and is not the speed that was anticipated. The average total progress has only been 7 feet per day. The amount paid to the contractor at the end of the year was $32,528.73.

On June 8th the contracts for sections Nos. 4 and 5 were awarded to John Wagner & Son, of Cleveland, and work was commenced on September 16th. The work so far carried out has been in tunnel, and has been done in an expeditious manner, and the contractors should have this contract completed within the time specified.

Plans are now being prepared for the balance of the high level interceptor for those sections east of the Don, and are well on towards completion.

The bids received for the work under contract have been very favorable, and contracts were all well below the Engineer's estimate.

The plans for the low level sewer are still under way, and we hope to be in a position to award contracts about May of next year.

The plans for the disposal tanks, out-fall sewer, etc., are also prepared, and contracts are to be awarded in February.

The limitations with respect to salaries in the Main Drainage Office, have militated against the procuring of men of experience to carry out this work, and this has probably stopped more rapid progress, but the assistants engaged, while not having much previous training, have been very careful and faithful in the discharge of their duties.

This Department also prepared a general plan and surveys for a sewage system for the recently annexed village of East Toronto.

In connection with the proposed out-fall sewer, extensive observations were made of the currents in the lake in the vicinity of the outlet.

The plans for the sewage tanks have been designed upon the lines suggested by Messrs. Hering & Watson, and tenders are now being received for these works.

Tenders for the steel and reinforced concrete pipe for the out-fall have also been awarded. The price for the 5-ft. steel pipe was $11.93 per foot, and for the reinforced concrete pipe, of the same dimension, $10.53 per foot.

It has been decided to lay the concrete pipe across Ashbridge's Bay and the steel pipe in the lake.

For further information in connection with this work, I refer you to the reports of the Assistant Engineers in charge of same.

## BRIDGES AND DOCKS.

This Department has charge of thirty-nine bridges, five subways, the various City docks and also the docks at Centre and Ward's Islands.

## LANSDOWNE AVENUE SUBWAY.

During the year the Lansdowne Avenue Subway was completed. The total cost of this work, exclusive of property damages, was $119,779, and the superstructure for the widening of the Dundas Street bridges finished.

## WILTON AVENUE BRIDGE.

The work upon the substructure at the Wilton Avenue bridge, across the Don, is also well under way, and the contract has been awarded for the superstructure.

## QUEEN STREET VIADUCT AT DON.

The Board of Railway Commissioners ordered the construction of a viaduct across the railway tracks at Queen Street and the Don; this renders it necessary that the Department prepare plans for the same, and these are now well under way.

## STANDARD SPECIFICATIONS FOR BRIDGES.

During the year a complete set of standard specifications for bridges has been prepared.

## HARBORD STREET BRIDGE.

A reinforced concrete arch has been built on the extension of Harbord Street, which has a clear span of 34 feet 6 inches, and a height of 23 feet. The width is 54 feet clear between the parapet railings.

## WINCHESTER STREET BRIDGE.

This bridge, crossing the River Don, has been reconstructed, and the work done by day labor, at a cost of $3,480.29.

## SPADINA AVENUE BRIDGE.

This bridge, situated over the Russell Hill Drive, and in that portion of the City recently annexed, has had to be reconstructed. The work was carried out by day labor at a cost of $3,302.87.

## INSPECTION OF BRIDGES.

The inspection of bridges up to the present time has been far from satisfactory, but during the year a thoroughly competent assistant has been engaged and makes a systematic inspection of all the bridges.

Extensive corrosion has been found on a number of the bridges crossing the River Don. A notable example of this is the Queen Street bridge, in which some of the lower chord angles have lost 50 per cent. of their cross sectional area in ten years.

On September 25th a serious break was discovered in this bridge, the lower chord at the west end of the south truss being broken through. Fortunately the bridge did not collapse, probably on account of the stiffness of the upper chord end post connection, aided by the arching effect of the whole chord and the connections of the buckled plate floor. The broken chord was of box section composed of four 5-in. x 3½-in. x ½-in. angles latticed, all of which broke through the rivet holes of the lattice bars. Attached to the report of the Assistant Engineer are diagrams, etc., showing the location of the fracture.

All street car and vehicular traffic was immediately stopped, and in forty-six hours the necessary repairs made and the bridge again opened for traffic.

For further details of this work see the report of the Assistant Engineer.

## ELECTRICAL DEPARTMENT.

During the past year a great deal of work has been done in connection with the installation of a complete electrical system for the lighting of the City and the supply of power. The current is to be obtained from the Hydro-Electric Commission from Niagara Falls, and up to the present a large number of designs, specifications, contracts, etc., have been prepared and awarded, also considerable conduit laying has been carried out by the contractors, Messrs. Golden & Lansing; sub-stations have been located, and the work has progressed favorably, and we should be in a position to handle electric current when the Commission are in a position to supply same. By the end of December of next year we expect to have all sub-stations completed and in operation, and all lines will be in such shape that power and light can be supplied at short notice to any point within the City limits, and the City will be in a position to take over the street lighting as soon as the present contract expires.

Now that this Department has been organized, the location and maintenance of all poles, street lights, etc., should be transferred to same.

For further details, I would refer you to the report of Mr. K. L. Aitken, Chief Engineer of Toronto Hydro-Electric System.

In concluding this report, I wish to thank the members of the Council, especially those on the Committee on Works, for the cordial co-operation and assistance in the carrying on of the work of the Department, and to the staff for their loyal and efficient support.

Respectfully submitted,

C. H. RUST,
*City Engineer.*

# Report of Deputy City Engineer and Assistant Engineer in Charge of Water Works

CITY ENGINEER'S DEPARTMENT,
Toronto, 1st February, 1910.

*Mr. C. H. Rust, City Engineer:*

DEAR SIR.—I herewith submit the Annual Report of this Department for the year ending December 31st, 1909.

DISTRIBUTION.

95,777¾ ft. of mains have been laid during the year, consisting of:—

| | | | |
|---|---|---|---|
| 368 | feet of | 16-inch | cast iron main. |
| 15,581 | " | 12-inch | " |
| 77,570¾ | " | 6-inch | " |
| 2,258 | " | 4-inch | " |

95,777¾ feet, equal to 18.1 miles.

There has been abandoned and taken up 1,855½ ft. of old mains.

At the end of the year the total length of the mains in use was 341.532 miles.

In addition to the mains, valves and hydrants returned as being in use at the end of 1909, the following approximate quantities came into the City, and were annexed to the City system on the annexation of the City of West Toronto and the Town of East Toronto.

CITY OF WEST TORONTO.

MAINS.

| | | | |
|---|---|---|---|
| 19,380 | feet of | 12-inch | main. |
| 3,640 | " | 10-inch | " |
| 420 | " | 8-inch | " |
| 75,456 | " | 6-inch | " |
| 2,950 | " | 4-inch | " |

Total, 101,846 feet, or 19.289 miles.

VALVES.

7 — 12-inch valves.
5 — 10-inch "
1 — 8-inch "
107 — 6-inch "
5 — 4-inch "

Total, 125

HYDRANTS: 195.

TOWN OF EAST TORONTO.

MAINS.

4,550 feet 12-inch main.
2,000 " 10-inch "
30,070 " 6-inch "
17,050 " 4-inch "

Total, 53,670 feet, or 10.164 miles.

VALVES.

3 — 12-inch valves.
4 — 10-inch "
34 — 6-inch "
26 — 4-inch "

Total, 67

HYDRANTS: 117.

These additions to the regular City system make the following totals now in operation as at the end of 1909.

MAINS.

| | | |
|---|---|---|
| City return | 341.532 | miles. |
| West Toronto | 19.289 | " |
| East Toronto | 10.164 | " |
| Total | 370.985 | miles. |

HYDRANTS.

| | |
|---|---|
| City return | 3,934 |
| West Toronto | 195 |
| East Toronto | 117 |
| Total | 4,246 |

STOP VALVES.

| | |
|---|---|
| City return | 3,277 |
| West Toronto | 125 |
| East Toronto | 67 |
| Total | 3,469 of all sizes. |

There are in the City proper 75 check valves on the system.

The number of stop valves placed in position is as follows:—

2 — 16-inch stop valves.
32 — 12-inch "
150 — 6-inch "
8 — 4-inch "

There were taken out during the year, one 12-inch, four 6-inch and one 4-inch stop valves, making a total of 3,277 stop valves in use.

One 12-inch and one 6-inch check valves were placed in position, making a total of 75 check valves.

HYDRANTS.

Fire hydrants to the number of two hundred and twenty-two (222) have been placed on the streets during the year, consisting of one hundred and twelve (112) 3-way hydrants, and one hundred and ten (110) 2-way hydrants.

In addition twenty-three (23) 2-way hydrants have been replaced by 3-way hydrants.

Thirteen 2-way hydrants were removed from off the streets, leaving a total of 3,934 hydrants in use.

HOUSE SERVICES.

The total number of services laid during this year was 5,147, being an increase of 1,506 over last year, equal to 41 per cent.

LEAKS ON MAINS.

13 on 36-inch mains.
— on 30-inch "
8 on 24-inch "
3 on 20-inch "
2 on 16-inch "
98 on 12-inch "
1 on 10-inch "
3 on 8-inch "
104 on 6-inch "
1 on 4-inch "
1 on 3-inch "

234 of all sizes.

The cost of repairing, exclusive of repairs to asphalt pavements, was $2,334.02, including material used, or an average cost of $9.97 per leak.

Average number of leaks per mile of distribution is 0.686, and the average cost per mile $6.84.

## RESERVOIR.

The average depth of water in the reservoir for the year was 17 ft. 7 in., equal to an elevation of 217 ft. 7 in. above zero level of Lake Ontario, and containing 27,012,740 gallons.

The lowest elevation of water was 206 ft. 4 in. above zero, on 13th of August; the highest 217 ft. 1 in., on 23rd of July.

The Reservoir could not be spared for cleaning again this year, owing to the difficulty of keeping up the supply and pressure.

## TEMPERATURE OF WATER.

The average temperature for the year, taken at the City Hall tap, was 44.75 degrees Fahrenheit.

The highest temperature, 69 degrees Fahrenheit, on the 17th and 18th of August, and the lowest, 36 degrees Fahrenheit, on the 19th of January, 11th and 23rd of February and 2nd to 5th of March.

## STABLES.

The cost of this branch for the year, including feed, veterinary surgeon, repairs to wagons, harness and sleigh, was $8,434.38.

General repairs have been done for the following departments: Assessment, Electrical, City Treasurer's, Engineer's, City Hall Boiler Room, Fire Department, Fountains, Filtration, House Services, High Pressure System, Island Water Works, Island Fire Protection, Island Pump, Main Pump, High Level, East and West Toronto Pumping Stations, Public Conveniences, Medical Health, Nos. 1, 2, and 3 Sand Pumps, Princess Street Yard, Roadway, Reservoir, Sewer, Septic Tanks, City Tug, Conduit, East and West Toronto Water Works.

| | |
|---|---|
| Total number of meters in use | 2,978 |
| Number of meters rebuilt in shop | 421 |
| Number of meters inspected and repaired without removal | 1,484 |
| Number of meters taken off for repairs and replaced | 395 |
| New meter takers | 328 |
| Meters ordered off | 118 |
| Total value of meters in service | $151,897.68 |
| Amounts charged various departments | 10,170.77 |
| Valves taken off Island, put on in spring | 54 |

| | |
|---|---|
| Number of drinking taps placed on Island | 24 |
| Number of drinking fountains in use | 67 |
| Number of combination fountains in use | 18 |
| New meter boxes put in | 136 |
| New frames used | 63 |

Mains blown out (West end), from Simcoe, St. George, Dupont and extreme west end of Ward No. 6. East end, from Simcoe, south of Queen Street to Don River, north of Queen Street to Wilton Avenue and west to Jarvis Street.

## HYDRANT AND VALVE DEPARTMENT.

| | |
|---|---|
| Hydrants inspected on street | 26,361 |
| Pumped, packed and oiled | 2,472 |
| Frozen, fired or blown out P. P. and O. | 699 |
| Hydrants repaired on street | 215 |
| Tightened with bar and chain | 15 |
| Jackets driven | 72 |
| Nozzles caulked | 523 |
| Chain rings closed | 673 |
| Set in line | 67 |
| Crowns chipped | 21 |
| Caps loosened | 12 |
| High pressure hydrants inspected, packed and oiled on street. | 878 |
| High pressure hydrants repaired on street | 8 |
| Hydrant nuts tightened | 540 |
| Leather valves made in shop | 354 |

### MATERIAL USED.

| | | |
|---|---|---|
| New leather valves | | 172 |
| " screws | | 7 |
| " jackets | | 2 |
| " chain rings | | 207 |
| " caps put on | | 21 |
| " joint rings | | 172 |
| " cap leathers | | 344 |
| Repaired caps put on | | 17 |
| Hydrants rebuilt in shop— | | |
| 2-ways | 137 | |
| 3-ways | 4 | |
| | | 141 |
| Packing nuts | | 23 |
| " rings | | 60 |
| Nozzles | | 192 |
| S. valves | | 98 |
| B. extension pieces | | 73 |
| Leather valves | | 120 |
| ½ pr. iron washers | | 33 |

HYDRANTS TESTED IN SHOP.

| | |
|---|---|
| 2-ways | 177 |
| 3-ways | 123 |
| Total | 300 |

NEW HYDRANTS PLACED ON STREET.

| | |
|---|---|
| 2-ways | 99 |
| 3-ways | 107 |
| Total | 206 |

HYDRANTS TAKEN OUT AND REPLACED ON STREET.

| | |
|---|---|
| 2-ways with 2-ways | 120 |
| 3-ways with 2-ways | 2 |
| 3-ways with 3-ways | 2 |
| 2-ways with 3-ways | 27 |
| Total | 151 |

HYDRANTS TAKEN OUT ON STREET AND ELBOWS PLUGGED.

| | |
|---|---|
| 2-ways | 7 |
| 3-ways | 2 |
| Total | 9 |

VALVES EXAMINED, SHUT AND OPENED ON STREET.

| | |
|---|---|
| 36-inch | 1 |
| 16-inch | 2 |
| 12-inch | 99 |
| 10-inch | 9 |
| 8-inch | 3 |
| 6-inch | 934 |
| 4-inch | 51 |
| Total | 1,099 |

VALVES REPAIRED ON STREET.

| | |
|---|---|
| 30-inch | 1 |
| 24-inch | 1 |
| 12-inch | 29 |
| 10-inch | 1 |

| | |
|---|---|
| 6-inch | 60 |
| 4-inch | 20 |
| 3-inch | 5 |
| Total | 117 |

| | |
|---|---|
| Number of fire hydrants in use | 3,922 |
| Valves pumped, packed and oiled | 13 |

VALVES TESTED IN SHOP.

| | |
|---|---|
| 12-inch | 11 |
| 8-inch | 1 |
| 6-inch | 198 |
| 4-inch | 36 |
| 3-inch | 19 |
| 2-inch | 146 |
| 1-inch | 47 |
| 1¼-inch | 12 |
| 1½-inch | 12 |
| ½-inch | 28 |
| Total | 510 |

MATERIAL USED.

| | |
|---|---|
| New tops | 32 |
| " screws | 71 |
| " spindles | 5 |
| " nuts | 20 |
| " gland bolts | 84 |
| " joints | 2 |
| " plugs put in | 1 |

BRASS WORK TESTED IN SHOP (PIECES) 16,471.

| | |
|---|---|
| ¾ x ⅝ D. cocks | 936 |
| ⅝ x ½ x ½ D. cocks | 1,846 |
| ⅝ single cocks | 1,015 |
| ½ " | 2,549 |
| ¾ " " | 422 |
| 1-in. " " | 212 |
| 1¼ " " | 409 |
| ½ couplings | 2,688 |
| ⅝ " | 987 |
| ¾ " | 12 |

| | |
|---|---|
| ½ driv. nipples | 1,435 |
| ⅝ " " | 1,946 |
| ¾ " " | 784 |
| ¾ screw " | 19 |
| ⅝ " " | 418 |
| 1-in. " " | 215 |
| ½ " " | 578 |
| Total | 16,471 |

## HIGH LEVEL PUMPING STATION.

2,474,912,933 gallons of water was repumped during the year; the daily average being 6,944,200 gallons.

The cost of running the station, including repairs, etc., was $30,379.19.

No. 3, the new 6-million gallon engine, constructed by the John McDougall Caledonian Iron Works Co., of Montreal, has been tested and found to fully conform to the requirements of the specification. It is a substantial and well designed pumping engine.

The second 6-million gallon engine is well under way—John Inglis & Co., contractors.

## MAIN PUMPING STATION.

11,419,392,921 gallons of water were pumped during the year. Of this quantity—

| | Gallons. |
|---|---|
| Nos. 1 and 2 engines pumped | 261,087,747 |
| Nos. 4 and 5 engines pumped | 6,116,313,258 |
| No. 6 engine pumped | 5,036,991,911 |
| This year's daily average | 31,267,905 |
| Last year's daily average | 29,250,552 |
| Increase | 2,017,353 |

Coal consumed during the year—16,895.45 tons. The cost of running the station:—

| | |
|---|---|
| For coal and ashes | $55,567 50 |
| For wages, oil, waste and repairs | 57,835 56 |
| | $113,403 06 |

### ISLAND PUMPING STATION.

Pumping at this station started on the 1st of April, and continued till the 5th of November, when the station was shut down.

### FILTRATION PLANT.

Work on this plant consisted chiefly in the construction and laying of concrete pipe and cast iron pipe for the filters. The erection of the Laboratory building, foundations of Pumping Engine building and the two regulator buildings, as well as the excavation of the site for the filters and the digging of a drainage canal enclosing the whole of the filters and clear water reservoir.

### ELECTRICAL PUMPING EQUIPMENT.

Contracts were let for the construction and erection of four 13½-million gallon turbine pumps, electrically driven, for the Main Pumping Station. Also two 4-stage 5-million gallon high pressure fire pumps, electrically driven, at the same station; four 10-million gallon and four 6½-million gallon electrically driven turbine pumps at High Level Pumping Station, and four 1½-million gallon turbine pumps for the Island system.

Yours truly,

C. L. FELLOWES,
*Deputy City Engineer.*

SCHEDULES

# WATER WORKS DEPARTMENT

NOTE.—For Schedule of "Cash Expenditure on Maintenance Account," etc., see page 241.
For Schedule of "Analysis of Expenditure at Main Pumping Station," see page 241.

## SCHEDULE No. 1.

STATEMENT OF WATER PUMPED BY ENGINES NOS. 1 AND 2 FOR THE YEAR 1909.

| Month. | No. of Days on which Engines were Working. | | Number of Hours Working Each Month. | | Number of Strokes for Each Engine per Month. | | Quantity of Water Pumped per Month by Each Engine in Imp. Gals. Gross. | | Total Quantity Pumped in Imp. Gals. Gross. | Percentage of Slip. | Total Quantity Pumped in Imp. Gals. Net. | Average Pressure on Pumps. | Average Level of Water in Well Below Zero. | | Total Quantity of Coal Consumed per Month by Engines Nos. 1 and 2. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | No. 1. | No. 2. | No. 1. | No. 2. | No. 1. | No. 2. | No. 1. | No. 2. | | | | | | | | |
| | | | h. m | h. m. | | | | | | | | Lbs. | Ft. | In. | Tons. | Lbs. |
| January | | | | | | | | | | | | | | | | |
| February | 4 | | 69 15 | | 46,466 | | 10,594,248 | | 10,594,248 | 5 | 10,064,536 | 95.0 | 14 | 5 | 336 | 1,820 |
| March | | | | | | | | | | | | | | | | |
| April | | 3 | | 51 10 | | 33,345 | | 15,305,355 | 15,305,355 | 5 | 14,540,088 | 92.0 | 13 | 1 | 51 | 1,860 |
| May | | 1 | 2 55 | | | 1,836 | | 812,724 | 842,724 | 5 | 800,588 | 86.0 | 13 | 2 | | |
| June | 3 | | 29 50 | | 30,280 | | 6,903,840 | | 6,903,840 | 5 | 6,558,648 | 96.6 | 13 | 11 | 13 | 240 |
| July | 19 | 5 | 225 10 | 77 40 | 166,029 | 44,706 | 37,854,612 | 20,520,054 | 58,374,666 | 5 | 55,455,933 | 96.2 | 13 | 7 | 51 | 1,390 |
| August | 26 | 13 | 243 00 | 116 25 | 191,284 | 79,246 | 43,612,752 | 36,373,914 | 79,986,666 | 5 | 75,987,333 | 98.1 | 14 | 7 | 240 | 430 |
| September | 25 | 5 | 274 55 | 56 25 | 216,460 | 39,398 | 49,352,880 | 18,083,682 | 67,436,562 | 5 | 64,064,734 | 96.0 | 14 | 7 | 193 | 860 |
| October | | | | | | | | | | | | | | | | |
| November | 5 | | 97 50 | | 78,565 | | 17,912,820 | | 17,912,820 | 5 | 17,017,179 | 93.0 | 14 | 4 | 44 | 590 |
| December | 7 | | 94 35 | | 76,633 | | 17,472,324 | | 17,472,324 | 5 | 16,598,708 | 89.4 | 14 | 10 | 39 | 1,100 |
| Totals | 89 | 27 | 1,037 30 | 301 40 | 805,717 | 198,531 | 183,703,476 | 91,125,729 | 274,829,205 | 5 | 261,087,747 | 842.3 | 126 | 6 | 971 | 290 |
| Monthly averages | 7.4 | 2.2 | 86 27 | 25 8 | 67,143 | 16,544 | 15,308,623 | 7,593,810 | 22,902,433 | 5 | 21,673,978 | 93.5 | 14 | 6 | 81 | 123 |

## SCHEDULE No. 2.

STATEMENT OF WATER PUMPED BY ENGINES NOS. 4 AND 5 FOR THE YEAR 1909.

| Month. | No. of Days on which Engines were working. | | Number of Hours working each Month. | | Number of Strokes made by Engines each Month. | | Quantity of Water Pump'd each Month by each Engine—Imperial Gallons, Gross. | | Total Quantity Pumped by Nos. 4 & 5 Engines. Imp. Gallons Gross | Percentage of Slip. | Total Quantity Pumped. Imp. Gallons Net. | Average Pressure on Pumps. | Average Lift by Engines. | Total Quantity of Coal used under Boilers each Month. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | No. 4. | No. 5 | No. 4. | No. 5. | No. 4. | No. 5. | No. 4. | No. 5. | | | | | | |
| | | | h. m. | h. m. | | | | | | | | Pounds. | Ft. In. | Tons. Lbs. |
| January | 31 | 31 | 728 30 | 730 10 | 1,120,082 | 1,291,740 | 236,337,302 | 271,265,400 | 507,602,702 | 5 | 482,222,567 | 95.0 | 19 6 | 708 730 |
| February | 25 | 28 | 561 00 | 667 05 | 821,505 | 1,201,681 | 173,337,555 | 252,353,640 | 425,691,195 | 5 | 404,406,636 | 94.9 | 19 6 | 603 860 |
| March | 31 | 31 | 741 40 | 740 15 | 1,093,972 | 1,299,806 | 230,828,092 | 272,959,260 | 503,787,352 | 5 | 478,597,985 | 95.0 | 19 6 | 687 1,500 |
| April | 30 | 30 | 701 35 | 708 25 | 1,046,651 | 1,267,636 | 220,813,361 | 266,203,560 | 487,046,921 | 5 | 462,694,575 | 95.0 | 18 4 | 683 700 |
| May | 30 | 31 | 677 40 | 706 10 | 1,029,249 | 1,304,955 | 217,171,539 | 274,040,550 | 491,212,089 | 5 | 466,651,485 | 96.5 | 17 7 | 679 1,180 |
| June | 30 | 30 | 716 30 | 716 45 | 1,227,153 | 1,458,860 | 258,959,283 | 306,360,600 | 565,319,883 | 5 | 537,053,889 | 95.8 | 17 6 | 712 290 |
| July | 29 | 31 | 672 35 | 736 00 | 1,171,291 | 1,493,519 | 247,142,401 | 313,638,990 | 560,781,391 | 5 | 532,742,322 | 96.6 | 17 1 | 712 1,085 |
| August | 31 | 31 | 740 15 | 738 10 | 1,365,578 | 1,556,276 | 288,136,958 | 326,817,960 | 614,954,918 | 5 | 584,207,173 | 97.4 | 18 6 | 813 795 |
| September | 30 | 30 | 709 10 | 711 40 | 1,320,964 | 1,499,715 | 278,723,404 | 314,940,150 | 593,663,554 | 5 | 563,980,377 | 96.4 | 18 11 | 787 1,220 |
| October | 31 | 31 | 714 45 | 741 20 | 1,281,943 | 1,493,741 | 270,489,973 | 313,685,610 | 584,175,583 | 5 | 554,966,804 | 95.1 | 18 10 | 787 630 |
| November | 30 | 27 | 713 40 | 613 50 | 1,320,400 | 1,269,327 | 278,604,400 | 266,558,670 | 545,163,070 | 5 | 517,901,917 | 95.8 | 19 4 | 739 780 |
| December | 29 | 31 | 618 20 | 731 55 | 1,163,891 | 1,491,639 | 245,581,634 | 313,244,190 | 558,825,824 | 5 | 530,884,533 | 93.0 | 19 10 | 781 1,330 |
| Totals | 357 | 362 | 8,325 40 | 8,541 45 | 13,962,682 | 16,628,898 | 2,916,155,902 | 3,492,068,580 | 6,438,224,482 | 5 | 6,116,313,258 | 1,146.5 | 224 5 | 8,696 1,100 |
| Monthly Averages | 29.7 | 30.1 | 693 48 | 711 49 | 1,163,556 | 1,385,741 | 245,512,991 | 291,005,715 | 536,518,706 | 5 | 509,692,771 | 95.5 | 18 8 | 724 1,425 |

SCHEDULE No. 3.

STATEMENT OF WATER PUMPED BY ENGINE No. 6 FOR THE YEAR 1909.

| Month. | No. of Days on which Engine Worked. | No. of Hours Working each Month. | Number of Strokes made by Engine each Month. | Quantity of Water Pumped each Month. Imp. Gallons Gross. | Percentage of Slip. | Quantity of Water Pumped each Month. Imp. Gallons Net. | Average Pressure on Pumps. | Average Lift by Engine. | Total Quantity of Coal used under Boilers each Month. |
|---|---|---|---|---|---|---|---|---|---|
| | | h. m. | | | | | Pounds. | Ft. In. | Tons. Lbs. |
| January | 31 | 715 10 | 837,718 | 442,985,278 | 5 | 420,836,014 | 97.7 | 17 11 | 617 590 |
| February | 28 | 672 00 | 787,195 | 416,268,716 | 5 | 395,455,280 | 97.0 | 18 0 | 581 50 |
| March | 31 | 736 15 | 832,681 | 440,323,299 | 5 | 418,307,134 | 100.6 | 17 10 | 615 640 |
| April | 29 | 667 20 | 749,554 | 396,364,155 | 5 | 376,545,948 | 94.1 | 17 11 | 564 410 |
| May | 31 | 739 25 | 854,416 | 451,815,181 | 5 | 429,224,422 | 98.4 | 16 10 | 597 1,390 |
| June | 30 | 720 00 | 855,632 | 452,458,201 | 5 | 429,835,291 | 98.2 | 16 1 | 576 800 |
| July | 31 | 737 35 | 867,955 | 458,974,604 | 5 | 436,025,874 | 99.3 | 16 5 | 599 260 |
| August | 31 | 744 00 | 885,907 | 468,467,621 | 5 | 445,044,240 | 99.0 | 17 8 | 584 840 |
| September | 30 | 691 15 | 823,125 | 435,268,500 | 5 | 413,505,075 | 99.6 | 18 1 | 545 1,690 |
| October | 31 | 744 00 | 846,784 | 447,779,379 | 5 | 425,390,410 | 97.7 | 17 11 | 637 1,260 |
| November | 30 | 720 00 | 827,612 | 437,641,225 | 5 | 415,759,164 | 97.8 | 18 5 | 623 1,390 |
| December | 31 | 734 20 | 858,076 | 453,756,588 | 5 | 431,063,059 | 98.0 | 18 10 | 685 190 |
| Totals | 364 | 8,621 20 | 10,026,658 | 5,302,096,747 | 5 | 5,036,991,911 | 1,177.4 | 211 11 | 7,227 1,510 |
| Monthly Averages | 30.3 | 718 26 | 835,554 | 441,841,395 | 5 | 419,749,325 | 98.1 | 17 8 | 602 625 |

| al Quantity of Water pumped Gallons Net. | Average Pressure on Force Mains. | Average Pressure on Suction Mains. | Total Quantity of Coal Consumed under Boilers. | | Coal Consumed for Banking Fires, Raising Steam, etc. | | Coal Consumed while Pumping. | |
|---|---|---|---|---|---|---|---|---|
| | Lbs. | Lbs. | Tons. | Lbs. | Tons | Lbs. | Tons | Lbs. |
| J 4,119,794 | 63.20 | 16.72 | 229 | 1,976 | 10 | 1,700 | 219 | 276 |
| F 1,045,884 | 63.79 | 19.41 | 216 | 166 | 9 | 1,600 | 206 | 566 |
| M 7,710,425 | 68.80 | 22.87 | 178 | 1,056 | 10 | 1,700 | 167 | 1,356 |
| A 7,848,204 | 69.22 | 22.83 | 220 | 036 | 10 | 1,000 | 209 | 1,036 |
| M 3,795,840 | 73.22 | 23.00 | 201 | 306 | 10 | 1,700 | 190 | 606 |
| J 3,326,258 | 62.34 | 20.10 | 205 | 576 | 10 | 1,000 | 194 | 1,576 |
| J 3,517,657 | 65.36 | 22.88 | 180 | 266 | ..... | ..... | ..... | ..... |
| A 3,647,467 | 68.17 | 21.75 | 224 | 1,796 | ..... | ..... | ..... | ..... |
| S 3,304,287 | 70.75 | 22.33 | 235 | 966 | ..... | ..... | ..... | ..... |
| O 4,234,855 | 72.66 | 23.33 | 202 | 1,026 | ..... | ..... | ..... | ..... |
| N 3,033,858 | 71.54 | 21.90 | 291 | 1,596 | ..... | ..... | ..... | ..... |
| D 3,328,404 | 72.11 | 22.27 | 219 | 066 | ..... | ..... | ..... | ..... |
| 1,912,933 | 821.16 | 259.39 | 2,604 | 1,832 | 63 | 700 | 2,541 | 1,132 |
| 3,242,744 | 68.43 | 21.61 | 217 | 152 | 10 | 1,116 | 211 | 1,594 |

SCHEDULE No. 4.

RECORD OF WATER RE-PUMPED AT HIGH LEVEL STATION FOR THE YEAR 1909.

| Month. | Number of Hours Engines working. | | | | Number of Revolutions made by Pumps. | | | | Quantity of Water Re-pumped. | | | | Total Quantity of Water Re-pumped by all Engines in Imp. Gallons Gross. | Percentage of Slip. | Total Quantity of Water Re-pumped Imp. Gallons Net. | Average Pressure on Force Mains. | Average Pressure on Suction Mains. | Total Quantity of Coal Consumed under Boilers. | | Coal Consumed for Banking Fires, Raising Steam, etc. | | Coal Consumed while Pumping. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | No. 1. | No. 2. | No. 3. | No. 4. | No. 1. | No. 2. | No. 3. | No. 4. | No. 1. | No. 2. | No. 3. | No. 4. | | | | | | | | | | | |
| | h. m. | h. m. | h. m. | h. m. | | | | | | | | | | | | Lbs. | Lbs. | Tons. | Lbs. | Tons | Lbs. | Tons | Lbs. |
| January | 83 30 | 744 00 | 438 30 | ..... | 258,009 | 1,672,667 | 752,215 | ..... | 11,739,409 | 75,270,015 | 109,071,175 | ..... | 196,080,599 | 1 | 194,119,794 | 63.20 | 16.72 | 229 | 1,976 | 10 | 1,700 | 219 | 276 |
| February | ..... | 668 00 | 364 40 | ..... | ..... | 1,541,208 | 573,912 | ..... | ..... | 69,354,360 | 83,217,240 | ..... | 152,571,600 | 1 | 151,045,884 | 63.79 | 19.41 | 216 | 166 | 9 | 1,600 | 206 | 566 |
| March | 98 30 | 736 00 | 404 45 | ..... | 243,358 | 1,648,820 | 649,902 | ..... | 11,072,789 | 74,196,900 | 94,235,790 | ..... | 179,505,479 | 1 | 177,710,425 | 68.80 | 22.87 | 178 | 1,056 | 10 | 1,700 | 167 | 1,356 |
| April | 383 10 | 566 30 | 360 10 | ..... | 731,631 | 1,449,971 | 629,019 | ..... | 33,289,210 | 65,248,695 | 91,207,755 | ..... | 189,745,660 | 1 | 187,848,204 | 69.22 | 22.83 | 220 | 036 | 10 | 1,000 | 209 | 1,036 |
| May | 380 00 | 363 30 | 503 20 | ..... | 682,161 | 795,591 | 909,956 | ..... | 31,038,326 | 35,801,730 | 131,943,620 | ..... | 198,783,676 | 1 | 196,795,840 | 73.22 | 23.00 | 201 | 306 | 10 | 1,700 | 190 | 606 |
| June | 348 15 | 521 00 | 472 30 | ..... | 758,886 | 973,843 | 945,716 | ..... | 34,529,313 | 43,822,935 | 137,128,820 | ..... | 215,481,068 | 1 | 213,326,258 | 62.34 | 20.10 | 205 | 576 | 10 | 1,000 | 194 | 1,576 |
| July | 371 00 | 468 50 | 494 50 | ..... | 657,155 | 875,996 | 959,820 | ..... | 29,571,975 | 39,857,818 | 139,173,900 | ..... | 208,603,693 | 1 | 206,517,657 | 65.36 | 22.88 | 180 | 266 | ..... | ..... | ..... | ..... |
| August | 103 10 | 742 30 | 495 20 | 173 05 | 271,568 | 1,497,786 | 918,100 | 321,897 | 12,220,560 | 68,149,263 | 133,124,500 | 38,674,835 | 252,169,158 | 1 | 249,647,467 | 68.17 | 21.75 | 224 | 1,796 | ..... | ..... | ..... | ..... |
| September | 88 25 | 718 00 | 464 45 | 267 00 | 213,610 | 1,361,212 | 754,317 | 349,634 | 9,612,450 | 61,935,146 | 109,375,965 | 50,696,930 | 231,620,491 | 1 | 229,304,287 | 70.75 | 22.33 | 235 | 966 | ..... | ..... | ..... | ..... |
| October | 308 05 | 736 45 | 479 00 | 26 30 | 698,645 | 1,465,536 | 840,886 | 44,486 | 31,439,025 | 66,681,888 | 121,928,470 | 6,450,470 | 226,499,853 | 1 | 224,234,855 | 72.66 | 23.33 | 202 | 1,026 | ..... | ..... | ..... | ..... |
| November | 316 50 | 712 30 | 514 15 | 41 45 | 775,962 | 1,394,070 | 842,328 | 69,491 | 34,693,290 | 63,430,185 | 122,137,560 | 10,076,195 | 230,337,230 | 1 | 228,033,858 | 71.54 | 21.90 | 291 | 1,596 | ..... | ..... | ..... | ..... |
| December | 289 20 | 736 50 | 390 55 | 105 50 | 693,080 | 1,437,728 | 653,626 | 187,121 | 31,188,600 | 65,416,621 | 94,775,770 | 27,132,545 | 218,513,539 | 1 | 216,328,404 | 72.11 | 22.27 | 219 | 066 | ..... | ..... | ..... | ..... |
| Totals | 2,770 15 | 7,714 25 | 5,383 00 | 614 10 | 5,979,065 | 16,084,431 | 9,129,797 | 972,629 | 270,394,947 | 729,165,559 | 1,367,320,565 | 141,031,205 | 2,499,912,016 | 1 | 2,474,912,933 | 821.16 | 259.39 | 2,604 | 1,832 | 63 | 700 | 2,541 | 1,132 |
| Monthly Averages | 251 50 | 642 52 | 448 35 | 122 50 | 543,551 | 1,340,369 | 785,816 | 194,525 | 22,532,912 | 60,763,796 | 113,943,380 | 28,206,241 | 208,326,003 | 1 | 206,242,744 | 68.43 | 21.61 | 217 | 152 | 10 | 1,116 | 211 | 1,594 |

| MONTHS. | Engine Nos. | Coal. Quantity Consumed. | | Coal. Total Consumption. | |
|---|---|---|---|---|---|
| | | Tons. | Lbs. | Tons. | Lbs. |
| January | 1 and 2 | | | | |
| | 4 and 5 | 708 | 730 | | |
| | 6 | 617 | 590 | | |
| | | | | 1,325 | 1,320 |
| February | 1 and 2 | 336 | 1,820 | | |
| | 4 and 5 | 603 | 860 | | |
| | 6 | 581 | 50 | | |
| | | | | 1,521 | 730 |
| March | 1 and 2 | | | | |
| | 4 and 5 | 687 | 1,500 | | |
| | 6 | 615 | 640 | | |
| | | | | 1,303 | 140 |
| April | 1 and 2 | 51 | 1,860 | | |
| | 4 and 5 | 683 | 700 | | |
| | 6 | 564 | 410 | | |
| | | | | 1,299 | 970 |
| May | 1 and 2 | | | | |
| | 4 and 5 | 679 | 1,180 | | |
| | 6 | 597 | 1,390 | | |
| | | | | 1,277 | 570 |
| June | 1 and 2 | 13 | 240 | | |
| | 4 and 5 | 712 | 290 | | |
| | 6 | 576 | 800 | | |
| | | | | 1,301 | 1,330 |
| July | 1 and 2 | 51 | 1,390 | | |
| | 4 and 5 | 712 | 1,085 | | |
| | 6 | 599 | 260 | | |
| | | | | 1,363 | 735 |
| August | 1 and 2 | 240 | 430 | | |
| | 4 and 5 | 813 | 795 | | |
| | 6 | 584 | 840 | | |
| | | | | 1,638 | 065 |
| September | 1 and 2 | 193 | 860 | | |
| | 4 and 5 | 787 | 1,220 | | |
| | 6 | 545 | 1,690 | | |
| | | | | 1,526 | 1,770 |
| October | 1 and 2 | | | | |
| | 4 and 5 | 787 | 630 | | |
| | 6 | 637 | 1,260 | | |
| | | | | 1,424 | 1,890 |
| November | 1 and 2 | 44 | 590 | | |
| | 4 and 5 | 739 | 780 | | |
| | 6 | 623 | 1,390 | | |
| | | | | 1,407 | 760 |
| December | 1 and 2 | 39 | 1,100 | | |
| | 4 and 5 | 781 | 1,330 | | |
| | 6 | 685 | 190 | | |
| | | | | 1,506 | 620 |
| Totals | | | | 16,895 | 900 |
| Daily averages | | | | 46 | 577 |

* A larger percentage was allowed for slip in 1894 and 1895, than in other years.

SCHEDULE No. 5.

COMPARATIVE STATEMENT OF COAL CONSUMED AND WATER PUMPED BY MONTHS FOR THE YEARS 1908 AND 1909.

| MONTHS. | 1908. | | | | | 1909. | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Engine Nos. | Water. | | Coal. | | Engine Nos. | Water. | | Coal. | |
| | | Quantity Pumped. | Total Quantity Pumped. | Quantity Consumed. | Total Consumption. | | Quantity Pumped. | Total Quantity Pumped. | Quantity Consumed. | Total Consumption. |
| | | Imp. Gals. Net. | Imp. Gals. Net. | Tons. Lbs. | Tons. Lbs. | | Imp. Gals. Net. | Imp. Gals. Net. | Tons. Lbs. | Tons. Lbs. |
| January | 1 and 2 | 131,426,401 | | 489 930 | | 1 and 2 | | | | |
| | 4 and 5 | 255,546,407 | | 371 1,490 | | 4 and 5 | 482,222,567 | | 708 730 | |
| | 6 | 437,491,538 | | 624 200 | | 6 | 420,836,014 | | 617 590 | |
| | | | 824,464,346 | | 1,485 620 | | | 903,058,581 | | 1,325 1,320 |
| February | 1 and 2 | 80,663,208 | | 288 110 | | 1 and 2 | 10,064,536 | | 336 1,820 | |
| | 4 and 5 | 358,116,876 | | 527 940 | | 4 and 5 | 404,406,636 | | 603 860 | |
| | 6 | 395,750,880 | | 611 275 | | 6 | 395,455,280 | | 581 50 | |
| | | | 834,530,964 | | 1,426 1,325 | | | 809,926,452 | | 1,521 730 |
| March | 1 and 2 | 38,836,914 | | | | 1 and 2 | | | | |
| | 4 and 5 | 501,140,824 | | 724 1,250 | | 4 and 5 | 478,597,985 | | 687 1,500 | |
| | 6 | 371,516,255 | | 638 135 | | 6 | 418,307,134 | | 615 640 | |
| | | | 911,493,993 | | 1,362 1,385 | | | 896,905,119 | | 1,303 140 |
| April | 1 and 2 | | | | | 1 and 2 | 14,540,088 | | 51 1,860 | |
| | 4 and 5 | 429,067,781 | | 631 1,230 | | 4 and 5 | 462,694,575 | | 683 700 | |
| | 6 | 415,802,881 | | 536 1,370 | | 6 | 376,545,948 | | 564 410 | |
| | | | 844,870,662 | | 1,168 600 | | | 853,780,611 | | 1,299 970 |
| May | 1 and 2 | 7,700,625 | | | | 1 and 2 | 800,588 | | | |
| | 4 and 5 | 471,277,992 | | 674 1,250 | | 4 and 5 | 466,651,485 | | 679 1,180 | |
| | 6 | 416,189,914 | | 507 10 | | 6 | 429,224,422 | | 597 1,390 | |
| | | | 895,168,531 | | 1,181 1,260 | | | 896,676,495 | | 1,277 570 |
| June | 1 and 2 | 7,232,225 | | | | 1 and 2 | 6,558,648 | | 13 240 | |
| | 4 and 5 | 530,119,337 | | 780 525 | | 4 and 5 | 537,053,889 | | 712 290 | |
| | 6 | 401,936,539 | | 557 95 | | 6 | 429,835,291 | | 576 800 | |
| | | | 939,288,101 | | 1,337 620 | | | 973,447,828 | | 1,301 1,330 |
| July | 1 and 2 | 42,137,082 | | | | 1 and 2 | 55,455,933 | | 51 1,390 | |
| | 4 and 5 | 490,020,723 | | 722 470 | | 4 and 5 | 537,742,322 | | 712 1,085 | |
| | 6 | 434,184,783 | | 710 675 | | 6 | 436,025,874 | | 599 260 | |
| | | | 966,342,588 | | 1,432 1,145 | | | 1,029,224,129 | | 1,363 735 |
| August | 1 and 2 | 1,435,165 | | | | 1 and 2 | 75,987,333 | | 240 430 | |
| | 4 and 5 | 531,294,744 | | 767 420 | | 4 and 5 | 584,207,173 | | 813 795 | |
| | 6 | 435,225,890 | | 578 800 | | 6 | 445,044,240 | | 584 840 | |
| | | | 967,955,799 | | 1,345 1,220 | | | 1,105,238,746 | | 1,638 065 |
| September | 1 and 2 | | | | | 1 and 2 | 64,064,734 | | 193 860 | |
| | 4 and 5 | 480,836,476 | | 681 110 | | 4 and 5 | 563,980,377 | | 787 1,220 | |
| | 6 | 430,703,444 | | 612 670 | | 6 | 413,505,075 | | 545 1,690 | |
| | | | 911,539,920 | | 1,293 780 | | | 1,041,550,186 | | 1,526 1,770 |
| October | 1 and 2 | 18,061,834 | | | | 1 and 2 | | | | |
| | 4 and 5 | 453,212,707 | | 703 710 | | 4 and 5 | 554,966,804 | | 787 630 | |
| | 6 | 420,899,730 | | 571 220 | | 6 | 425,390,410 | | 637 1,260 | |
| | | | 892,174,271 | | 1,274 930 | | | 980,357,214 | | 1,421 1,890 |
| November | 1 and 2 | | | | | 1 and 2 | 17,017,179 | | 44 590 | |
| | 4 and 5 | 443,126,323 | | 616 360 | | 4 and 5 | 517,901,917 | | 739 780 | |
| | 6 | 402,816,340 | | 582 260 | | 6 | 415,759,164 | | 623 1,390 | |
| | | | 845,942,663 | | 1,198 620 | | | 950,681,260 | | 1,407 760 |
| December | 1 and 2 | | | | | 1 and 2 | 16,598,708 | | 39 1,100 | |
| | 4 and 5 | 444,560,846 | | 664 450 | | 4 and 5 | 530,881,533 | | 781 1,330 | |
| | 6 | 420,723,671 | | 614 1,620 | | 6 | 431,063,059 | | 685 190 | |
| | | | 865,284,517 | | 1,279 070 | | | 978,546,300 | | 1,506 620 |
| Totals | | | 10,699,056,355 | | 15,785 575 | | | 11,419,392,921 | | 16,895 900 |
| Daily averages | | | 29,232,449 | | 43 258 | | | 31,286,006 | | 46 577 |

## SCHEDULE No. 6.

COMPARATIVE STATEMENT SHOWING NUMBER OF GALLONS PUMPED, QUANTITY AND COST OF FUEL, ETC., FROM 1876 TO 1909, INCLUSIVE.

| YEAR. | Total Water Pumped — Imp. Gals. | Quantity of Fuel. Lbs. | Total Cost of Fuel. | Average Daily Quantity of Water Pumped — Imp. Gals. | Average Daily Consumption of Coal. Lbs. | Water Pumped per Pound of Fuel. — Imp. Gals. |
|---|---|---|---|---|---|---|
| 1876 | 1,625,139,876 | 6,998,282 | $19,645 75 | 4,451,202 | 19,093 | 232.02 |
| 1877 | 2,633,433,932 | 10,407,992 | 25,556 29 | 7,214,887 | 28,515 | 253.02 |
| 1878 | 1,417,370,918 | 8,120,000 | 15,496 20 | 3,883,208 | 22,246 | 174.55 |
| 1879 | 1,610,104,542 | 10,872,211 | 19,313 07 | 4,411,245 | 29,787 | 148.09 |
| 1880 | 1,785,859,706 | 11,694,808 | 28,455 72 | 4,879,422 | 31,953 | 152.17 |
| 1881 | 1,910,430,419 | 12,391,874 | 31,410 04 | 5,234,056 | 33,950 | 154.18 |
| 1882 | 2,108,933,115 | 11,685,556 | 30,170 64 | 5,777,899 | 32,015 | 180.47 |
| 1883 | 2,809,965,184 | 17,266,679 | 43,529 08 | 7,698,511 | 47,306 | 162.74 |
| 1884 | 3,645,442,082 | 19,920,782 | 52,525 56 | 9,960,224 | 54,428 | 183.00 |
| 1885 | 3,537,482,598 | 18,644,465 | 46,589 27 | 9,691,733 | 54,081 | 189.73 |
| 1886 | 4,134,376,998 | 19,285,371 | 41,979 32 | 11,327,060 | 52,837 | 214.37 |
| 1887 | 4,417,938,169 | 23,283,900 | 50,051 85 | 12,103,940 | 63,791 | 189.74 |
| 1888 | 4,041,964,514 | 20,457,935 | 46,600 77 | 11,073,875 | 56,049 | 197.57 |
| 1889 | 4,148,781,634 | 19,231,940 | 44,135 10 | 11,366,525 | 52,690 | 215.72 |
| 1890 | 5,249,760,226 | 34,615,830 | 56,239 99 | 14,382,904 | 67,536 | 212.96 |
| 1891 | 6,207,656,403 | 29,300,240 | 60,012 77 | 17,007,275 | 80,291 | 211.86 |
| 1892 | 6,659,925,650 | 34,505,875 | 71,805 25 | 18,246,371 | 94,278 | 193.00 |
| 1893 | 6,646,021,488 | 26,013,840 | 64,702 86 | 18,208,278 | 71,270 | 255.47 |
| 1894 | 6,589,492,142 | 26,822,145 | 54,902 85 | 18,053,403 | 73,485 | 245.67* |
| 1895 | 6,639,680,218 | 21,178,879 | 40,221 85 | 18,190,902 | 58,024 | 313.5* |
| 1896 | 6,718,187,980 | 18,606,508 | 25,307 90 | 18,527,836 | 50,837 | 364.4 |
| 1897 | 6,723,757,030 | 20,711,250 | 26,880 50 | 18,421,253 | 56,743 | 324.64 |
| 1898 | 7,136,334,102 | 22,100,145 | 27,572 00 | 19,551,600 | 60,548 | 322.91 |
| 1899 | 7,824,348,217 | 24,682,935 | 26,684 57 | 21,436,569 | 67,642 | 316.99 |
| 1900 | 8,064,384,595 | 24,148,565 | 38,668 54 | 22,094,204 | 66,160 | 333.95 |
| 1901 | 8,299,298,465 | 26,292,640 | 39,402 87 | 22,463,831 | 72,034 | 314.89 |
| 1902 | 7,993,916,325 | 23,769,930 | 39,260 22 | 21,901,140 | 64,575 | 339.15 |
| 1903 | 8,735,658,003 | 30,260,615 | 54,275 93 | 23,933,309 | 82,900 | 288.68 |
| 1904 | 9,076,711,575 | 32,843,325 | 55,784 05 | 24,799,758 | 89,735 | 276.36 |
| 1905 | 9,174,732,461 | 34,512,095 | 49,644 31 | 25,136,253 | 94,553 | 265.84 |
| 1906 | 9,859,486,414 | 27,649,495 | 43,542 28 | 27,012,291 | 75,752 | 356.62 |
| 1907 | 10,356,547,168 | 30,768,630 | 48,380 46 | 28,374,101 | 84,297 | 359.19 |
| 1908 | 10,699,056,355 | 31,750,575 | 49,226 46 | 29,232,449 | 86,750 | 366.00 |
| 1909 | 11,419,392,921 | 33,790,900 | 17,615 39 | 31,267,905 | 92,577 | 337.94 |

* A larger percentage was allowed for slip in 1894 and 1895, than in other years.

SCHEDULE No. 7.

QUANTITY OF WATER PUMPED AND QUANTITY CONSUMED DURING EACH MONTH OF 1909, WITH AMOUNT OF DAILY CONSUMPTION.

| Month. | Total Quantity Pumped per Month in Imperial Gallons | Quantity Stored in Reservoir at end of each Month. Imperial Gallons | Quantity Consumed during each Month. Imperial Gallons | Average Daily Consumption of Water. Imperial Gallons | Average Monthly Consumption of Coal at Main Pumping Station | |
|---|---|---|---|---|---|---|
| | | | | | Tons. | Lbs. |
| Stored in Reservoir on 31st December, 1908 | ..... | 22,348,168 | ..... | ..... | ..... | |
| January | 903,058,581 | 29,178,356 | 896,228,393 | 28,910,593 | 1,325 | 1,320 |
| February | 809,926,452 | 29,812,793 | 809,292,015 | 28,903,286 | 1,521 | 730 |
| March | 896,905,119 | 28,966,876 | 897,751,036 | 28,953,259 | 1,303 | 140 |
| April | 853,780,611 | 24,404,797 | 858,342,690 | 28,611,423 | 1,299 | 970 |
| May | 896,676,495 | 22,583,399 | 898,497,893 | 28,983,803 | 1,277 | 570 |
| June | 973,447,828 | 15,766,093 | 980,265,134 | 32,675,504 | 1,301 | 1,330 |
| July | 1,029,224,129 | 20,395,868 | 1,024,594,374 | 33,051,431 | 1,363 | 735 |
| August | 1,105,238,746 | 24,404,797 | 1,101,229,817 | 35,523,542 | 1,638 | 065 |
| September | 1,041,550,186 | 28,966,876 | 1,036,988,107 | 34,566,270 | 1,526 | 1,770 |
| October | 980,357,214 | 28,755,397 | 980,568,693 | 31,631,248 | 1,424 | 1,890 |
| November | 950,681,260 | 28,591,090 | 958,845,567 | 31,961,518 | 1,407 | 760 |
| December | 978,546,300 | 24,404,797 | 974,732,593 | 31,442,986 | 1,506 | 620 |
| Totals | 11,419,392,921 | ..... | 11,417,336,312 | 375,214,863 | 16,895 | 900 |
| Averages | 951,616,076 | ..... | 951,444,692 | 31,267,905 | 1,479 | 108 |

## SCHEDULE No. 8.

COMPARATIVE STATEMENT SHOWING INCREASE OF DEPARTMENT YEARLY, 1875 TO 1909, INCLUSIVE.

| YEAR. | Average Daily Consumption of Water. | Population. | Average Daily Consumption of Water per Capita for all Purposes | Total Number of House Services in use in each year. | Number of House Services put in each year. | Total Number of Hoists in use in each year. | Total Number of Meters in use each year. | Total Number of Miles of Mains in use each year. | Average Pressure on Pumps. | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | No. 1, Worthington Engine. | No. 2, Worthington Engine. | No. 3, Inglis & Hunter Engine. | No. 4, Blake Engine. | No. 5, Blake Engine. | No. 6, Jno. Inglis Co. Engine. |
| | | | Gallons. | | | | | Miles. | | | | | | |
| 1875 .. | 3,424,000 | 68,678 | 49.86 | 2,769 | 842 | ..... | ..... | 49.810 | 88.10 | ..... | ..... | ..... | ..... | ..... |
| 1876 .. | 4,451,202 | 71,693 | 62.09 | 3,512 | 740 | ..... | ..... | 80.250 | 88.78 | 97.51 | ..... | ..... | ..... | ..... |
| 1877 .. | 2,812,000 | 67,386 | 41.74 | 4,518 | 1,006 | ..... | ..... | 107.570 | 83.33 | 97.69 | ..... | ..... | ..... | ..... |
| 1878 .. | 3,883,208 | 70,867 | 54.79 | 6,707 | 2,189 | 28 | ..... | 110.240 | 89.65 | 96.61 | ..... | ..... | ..... | ..... |
| 1879 .. | 4,411,245 | 73,813 | 59.76 | 8,568 | 1,861 | 47 | ..... | 111.290 | 95.28 | 99.04 | ..... | ..... | ..... | ..... |
| 1880 .. | 4,879,422 | 75,110 | 64.96 | ..... | 1,014 | 66 | ..... | 113.312 | 98.22 | 99.52 | ..... | ..... | ..... | ..... |
| 1881 .. | 5,234,056 | 76,934 | 68.03 | 12,236 | 2,654 | 79 | ..... | 115.518 | 96.32 | 100.78 | ..... | ..... | ..... | ..... |
| 1882 .. | 5,777,899 | 81,372 | 71.01 | 14,062 | 1,826 | 94 | ..... | 116.115 | 94.85 | 101.66 | ..... | ..... | ..... | ..... |
| 1883 .. | 7,698,511 | 91,796 | 83.87 | 16,276 | (1,766) (448) | 109 | ..... | 131.352 | 94.27 | 105.49 | ..... | ..... | .... | ..... |
| 1884 .. | 9,960,224 | 105,211 | 94.66 | 18,363 | 2,087 | 130 | ..... | 138.301 | 99.14 | 107.03 | ..... | ..... | ..... | ..... |
| 1885 .. | 9,706,127 | 111,800 | 86.82 | 20,707 | 2,344 | 140 | 195 | 143.257 | 98.84 | 106.45 | 103.88 | ..... | ..... | ..... |
| 1886 .. | 11,344,337 | 118,403 | 95.81 | 23,643 | 2,936 | 152 | 256 | 156.042 | 104.88 | 104.92 | 104.67 | ..... | ..... | ..... |
| 1887 .. | 12,060,610 | 126,169 | 95.59 | 26,893 | 3,315 | 176 | 332 | 165.894 | ..... | ..... | ..... | ..... | ..... | ..... |
| 1888 .. | 11,069,784 | 166,809 | 66.36 | 29,883 | 3,055 | 174 | 897 | 182.625 | 93.41 | 92.36 | 94.57 | ..... | ..... | ..... |
| 1889 .. | 11,378,962 | 175,000 | 65.02 | 34,056 | 3,288 | 222 | 1,317 | 212.832 | 94.25 | 94.82 | 94.92 | ..... | ..... | ..... |
| 1890 .. | 14,434,722 | 185,000 | 78.02 | 36,192 | 2,191 | 229 | 1,479 | 229.257 | 92.83 | 93.55 | 93.58 | ..... | ..... | ..... |
| 1891 .. | 17,007,275 | 188,904 | 90.03 | 38,250 | 2,111 | 230 | 1,544 | 237.967 | 93.33 | 93.66 | 93.91 | ..... | ..... | ..... |
| 1892 .. | 18,246,371 | 188,901 | 96.59 | 39,101 | 1,200 | 288 | 1,535 | 242.561 | ..... | ..... | ..... | ..... | ..... | ..... |
| 1893 .. | 18,208,278 | 188,904 | 96.38 | 39,927 | 526 | 300 | 1,600 | 244.964 | 94.18 | 94.18 | 94.18 | 96.37 | ..... | ..... |
| 1894 .. | 18,056,881 | 188,901 | 95.58 | 40,326 | 399 | 258 | 1,580 | 245.478 | 94.88 | 94.88 | 94.88 | 95.24 | 95.24 | ..... |
| 1895 .. | 18,192,063 | 190,000 | 95.74 | 40,683 | 357 | ..... | 1,500 | ..... | 94.88 | 94.88 | 94.88 | 95.05 | 95.05 | ..... |
| 1896 .. | 18,527,836 | 195,987 | 94.53 | 40,951 | 313 | 230 | 1,553 | 249.627 | 94.5 | 94.5 | 94.5 | 95.4 | 95.4 | ..... |
| 1897 .. | 18,378,722 | 195,987 | 93.77 | 41,315 | 364 | 230 | 1,553 | 252.616 | 95.1 | 95.1 | 95.1 | 95.7 | 95.7 | ..... |
| 1898 .. | 19,576,957 | 200,000 | 97.88 | 41,838 | 523 | 230 | 1,580 | 255.625 | 95.3 | 95.3 | 95.3 | 95.9 | 95.9 | ..... |
| 1899 .. | 21,436,509 | 225,000 | 95.27 | 42,552 | 714 | 230 | 1,598 | 257.613 | 94.9 | 94.9 | 94.9 | 95.3 | 93.3 | ..... |
| 1900 .. | 22,094,204 | 235,000 | 94.01 | 43,242 | 690 | 230 | 1,700 | 258.774 | 94.0 | 94.0 | 94.0 | 93.5 | 93.5 | ..... |
| 1901 .. | 22,507,266 | 235,000 | 95.77 | 44,275 | 1,033 | 239 | 1,800 | 260.321 | 93.8 | 93.8 | 93.8 | 93.2 | 93.2 | ..... |
| 1902 .. | 21,901,140 | 236,000 | 88.57 | 45,607 | 1,319 | 241 | 1,830 | 264.166 | 94.1 | 94.1 | 94.1 | 92.6 | 92.6 | ..... |
| 1903 .. | 23,933,847 | 245,000 | 93.60 | 48,529 | 1,402 | 241 | 1,844 | 266.955 | 94.6 | 94.6 | 94.6 | 93.2 | 93.2 | ..... |
| 1904 .. | 24,803,478 | 250,000 | 99.20 | 50,817 | 2,036 | 245 | 2,043 | 272.853 | 94.3 | 94.3 | ..... | 93.1 | 93.1 | ..... |
| 1905 .. | 25,041,681 | 270,000 | 92.75 | 54,012 | 3,185 | 250 | 2,331 | 286.619 | 94.9 | 94.9 | ..... | 93.4 | 93.4 | ..... |
| 1906 .. | 26,996,007 | 295 000 | 91.51 | 58,053 | 4,041 | 256 | 2,513 | 293.552 | 90.1 | 90.1 | ..... | 89.1 | 89.1 | 91.9 |
| 1907 .. | 28,291,468 | 310,000 | 91.2 | 62,034 | 3,961 | 264 | 2,587 | 305.597 | 90.1 | 90.1 | ..... | 91.9 | 91.9 | 93.8 |
| 1908 .. | 29,250,552 | 315,000 | 92.8 | 65,303 | 3,672 | 515 | 2,768 | 323.743 | 91.1 | 91.1 | ..... | 93.3 | 93 3 | 96 1 |
| 1909 .. | 31,267,905 | 325,000 | 96.2 | 70,450 | 5,147 | 530 | 2,978 | 341,532 | 93.5 | 93.5 | ..... | 95.5 | 95.5 | 98.1 |

## SCHEDULE No. 9.

RECORD OF GAUGING AT ROSEHILL RESERVOIR FOR EACH MONTH OF 1909.

| 1909. Month. | Elevation of Lowest Water Above Zero. | | Elevation of Highest Water Above Zero. | | Average Elevation Above Zero. | | Average Depth in Reservoir. | | Average Contents in Imperial Gallons. |
|---|---|---|---|---|---|---|---|---|---|
| | Ft. | In. | Ft. | In. | Ft. | In. | Ft. | In. | |
| January | 212 | 4 | 216 | 4 | 214 | 3 | 18 | 3 | 28,543,918 |
| February | 211 | 0 | 215 | 7 | 214 | 1 | 18 | 1 | 28,120,960 |
| March | 213 | 5 | 216 | 2 | 214 | 8 | 18 | 8 | 29,601,314 |
| April | 210 | 3 | 216 | 7 | 214 | 1 | 18 | 1 | 28,120,960 |
| May | 209 | 3 | 215 | 6 | 212 | 11 | 16 | 11 | 25,217,904 |
| June | 208 | 11 | 216 | 7 | 213 | 0 | 17 | 0 | 25,421,180 |
| July | 209 | 4 | 217 | 1 | 213 | 8 | 17 | 8 | 27,080,047 |
| August | 206 | 4 | 216 | 5 | 211 | 2 | 15 | 2 | 20,989,551 |
| September | 210 | 8 | 216 | 11 | 213 | 6 | 17 | 6 | 26,665,331 |
| October | 212 | 8 | 216 | 11 | 214 | 10 | 18 | 10 | 30,024,272 |
| November | 209 | 10 | 216 | 8 | 213 | 10 | 17 | 10 | 27,494,764 |
| December | 210 | 3 | 216 | 8 | 213 | 7 | 17 | 7 | 26,872,689 |
| Averages | ..... | | ..... | | 213 | 7 | 17 | 7 | 27,012,740 |

NOTE.—The average depth of water in the Reservoir for the year was 17 ft. 7 in., equal to an elevation of 213 ft. 7 in. above zero.

## SCHEDULE No. 10.

STATEMENT OF MAINS LAID DURING THE YEAR 1909.

| Street, Avenue, etc. | Side of Street. | Location. | Length in Feet. |
|---|---|---|---|
| 16-IN. MAIN: | | | |
| Dundas St. | South | Extension west to Annette St. | 119 |
| Royce Ave. | South | Extension across Rly. track to Dundas St. | 249 |
| | | Total | 368 |
| 12-IN. SUB-MAINS: | | | |
| Annette St. | E. & S. | From Dundas St., south and westerly to Keele St. | 1,390 |
| Bathurst St. | East | Across Intersection of St. Clair Ave. | 90 |
| Christie St. | West | From St. Clair Ave to Davenport Road. | 2,359 |
| Davenport Road. | North | Jog across Christie St. (Intersection). | 100 |
| Dundas St. | South | From Annette St. to Keele St | 1,489 |
| Keele St. | East | " Annette St. e. to Annette St. w. (jog) | 224 |
| Lansdowne Ave. | East | Through the subway from old main s. of Rideau Ave., n. to Lansdowne. | 960 |
| Queen St., east. | North | From McLean Ave. to Beach Ave | 994 |
| St. Clair Ave. | North | " 36 ft. e. of Marlboro' Cres. to Yonge | 1,025½ |
| " " | " | " Warren Road to 58 ft. west of Hendrick St. | 6,949½ |
| | | Total | 15,581 |
| 6-IN. SUB-MAINS: | | | |
| Albert St. | North | Across Christie St. (Intersection) | 76 |
| Albany Ave. | West | From Davenport Road, 879 ft. south | 904 |
| Alvin Ave. | West | " St. Clair Ave., 207 ft. north | 225 |
| Austin Ave. | South | " Walmer Rd. main e. to Spadina Rd. | 339 |
| Arlington Ave. | West | " St. Clair Ave. south to Tyrell Ave. | 1,310 |
| Aziel St., W. Tor. | West | " Annette St., 258 ft. south | 301 |
| Bain Ave. | North | " 478 ft. e. of Broadview Ave. 50 ft. e. | 50 |
| " | " | " Pape Ave to 621 ft. east | 673 |
| Baker Ave. | North | " 694 ft. w. of bend in street 97 ft. w. | 97 |
| Bathurst St. | East | Queen's wharf extension e. & s. 92 ft. | 92 |
| Bedford Road. | West. | From 23 ft. s. of Chicora Ave. 86 ft. s. | 86 |
| Beresford Ave., W. Toronto | West | " Colbeck Ave. 156 ft. south | 156 |
| Binscarth Road. | South | " Glen Road, west to old main | 244 |
| Boston Ave. | West | " Gerrard St., 280 ft. south-west | 315 |
| Bowden St. | West | " 195½ ft. s. of Wolfrey Ave. to 48 ft. n. of Dearbourne Ave. | 776½ |
| Campbell Ave. | West | " Wallace Ave., 343 ft. south | 391 |
| Carlaw Ave. | West | " Danforth Ave., 1,406½ ft. north | 1,406½ |
| Chester Ave. | West | " Danforth Ave., 1,395 ft. north | 1,443 |
| Clinton Ave. | North | " 93½ e. of Baker Ave., e. to Lawton Rd | 297 |
| Cluny Ave. | West | " Pricefield Ave. s. to Rowanwood Ave. | 426 |
| College St. | North | " Sunnyside Ave. to Indian Road | 511 |
| Conduit St. | North | Extension east to Willoughby Ave. | 248 |

SCHEDULE No. 10.—*Continued.*

STATEMENT OF MAINS LAID DURING THE YEAR 1909.

| Street, Avenue, etc. | Side of Street. | Location. | Length in Feet. |
|---|---|---|---|
| Constance Ave.... | North .... | From Sunnyside Ave. to Indian Road..... | 461 |
| " " .... | " .... | " 12 ft. west of Roncesvalles Ave. to Sunnyside Ave..... | 576½ |
| Coxwell Ave..... | West..... | " Queen St. east, 2,314 ft. north..... | 2,330 |
| Crawford St.... | West..... | " 1,750 ft. s. of Bloor St., 108 ft. s.... | 108 |
| Dartnell Ave..... | West..... | " Davenport Rd., 479 ft. south..... | 520½ |
| Davenport Road... | North .... | " Poplar Pls. Rd. west to Christie St. | 5,767 |
| Dearborne Ave... | South .... | " Bowden St., 255 ft. w. to old main .. | 271 |
| Dingwall Ave. .... | South .... | " Pape Ave. to Carlaw Ave..... | 591 |
| Duggan Ave... ... | North .... | " Lawton Rd., 1149½ ft. west ..... | 1,168 |
| Dunvegan Rd. .... | West..... | " South line of Lonsdale Ave., extension n. to 80 ft. n. of Lonsdale Ave | 180 |
| Dupont St..... | North .... | " 133 ft. e. of Christie St. to Manning Ave..... | 513 |
| Durie St., W. Tor. | West..... | " Annette St., 631 ft. south..... | 656 |
| Eaton Ave..... | West..... | " Danforth Ave., 1,405 ft. north ..... | 1,445 |
| Ellesworth Ave.... | North .... | " Vaughan Road, 1,031 ft. west ..... | 1,047 |
| Emerson Ave..... | West... . | " Lappin Ave., 84 ft. s. to old main.. | 132 |
| Emerson Ave. .... | " .... | " 12 ft. s. of Royce Ave., s. to old main | 355 |
| Exhibition Gro'nds ..... | | " Dufferin St., 12 in. main 248½ ft. w., and 250 ft. s. on the n. and w. sides of the new Transportation Building..... | 498½ |
| Fairview Ave..... | South .... | " Broadview Ave. e. to Bowden St. ... | 1,142 |
| Fairview Ave., W. Toronto ..... | West..... | " 420 ft. n. Annette St. to 343 ft. s. of Louisa St..... | 683 |
| Fairview Ave., W. Toronto .. ..... | West..... | " Woodside Ave. 165 ft. north..... | 189 |
| Ferrier Ave..... | West..... | " Danforth Ave., 1,403 ft. north ..... | 1,450 |
| Follis Ave. ..... | North ... | " 126 ft. west of Euclid Ave. west to Manning Ave. ..... | 150 |
| Frederica St..... | West..... | " 12 in. main St. Clair Ave., 30 ft. north (connection) ..... | 30 |
| Front St., east.... | West..... | Extension s. on Don Esplanade ..... | 213 |
| Galley Ave..... | South ... | From 435 ft. east of Sorauren Ave. to Macdonell Ave..... | 355 |
| Galley Ave. ..... | South .... | To connect to Sunnyside Ave..... | 16 |
| Galt Ave..... . | West..... | From 407 ft. s. of Gerrard St., s. to Dagmar Ave..... | 531 |
| Garden Ave..... | North .... | Extension w. to Sunnyside Ave..... | 210½ |
| Geoffrey St. ..... | North .... | " across Sunnyside Ave..... | 46 |
| Glen. Ave ..... .. | North .... | From Yonge St., 602 ft. east ..... | 608 |
| Glendale Ave.. .... | West..... | " Wright Ave., 326 ft. south..... | 374 |
| Glenham Ave..... | North .... | " Christie St., 12 ft. main, 30 ft. west (connection)..... | 30 |
| Globe Ave.... .... | North .... | " Pape Ave , 623 ft. east ..... | 67¾ |
| Gormally Ave..... | North .... | " Lawton Rd., 1,190 ft. west ..... | 1,208 |
| Grace St. ..... | East..... | " A point 1,880 ft. north of College St. across Grace St., thence 272 ft. n. | 306½ |

SCHEDULE No. 10.—*Continued.*

STATEMENT OF MAINS LAID DURING THE YEAR 1909.

| Street, Avenue, etc. | Side of Street. | Location. | Length in Feet. |
|---|---|---|---|
| Grace St.. ..... | West .... | From 385 ft. s. of Bloor St., 208 ft. south, thence across road to east side.... | 235 |
| Hampton Ave .... | West .... | " Wolfrey Ave. to Hogarth Ave ..... | 329 |
| Harbord St ..... | North.... | " Givens St., 113 ft. east..... | 158 |
| Harbord St ..... | North.... | " Jersey Ave., 113 ft. east..... | 120 |
| Havelock St..... | West .... | " 20 ft. south of Sylvan Ave., 54 ft. south..... ..... | 54 |
| Hazelwood Ave. .. | North .... | " Jones Ave., 333 ft. west..... | 350 |
| Heath St..... | North .... | " 185 ft. east of Oriole Rd. to Yonge st..... | 1,450 |
| Helena Ave..... | North..... | " Vaughan Rd., 1,333 ft. west ..... | 1,351 |
| Hendrick Ave. .... | West .... | " 12 in. main st. Clair Ave., 60 ft. south (connection)..... | 60 |
| Highlands Ave.... | South .... | " 318 ft. west of Schofield Ave., 1,050 ft. westerly, thence around the oval to main at a point 245 ft. w. of third hydrant w. of Schofield Ave. | 1,292 |
| High Park Blvd.. | North .... | " Sunnyside Ave. to 12 ft. west of Roncesvalles Ave..... | 594½ |
| Hogarth Ave..... | South .... | " Logan Ave , 1948 ft. west, thence north across the street to old 6 in. main on north side at a point 140 ft. east of Broadview Ave..... | 2,003 |
| Howard Park Ave. | South .... | " Indian Rd., 130 ft. east to old main. | 149 |
| Howland Ave..... | West..... | " Davenport Rd., 713 ft. south.. ..... | 751 |
| Humberside Ave., W.T. | North .... | " Keele St., 236 ft. west..... | 254 |
| Humewood Ave.... | West..... | " 12 in. main St. Clair Ave., 30 ft. north (connection)..... | 30 |
| Kendall Ave ..... | East .... | " Davenport Rd., 416¾ ft. south ..... | 454¾ |
| Kennedy Ave..... | West .... | " 12 in. main St. Clair Ave., 30 ft. north (connection)..... ..... | 30 |
| Kenwood Ave..... | West .... | " 12 in. main St. Clair Ave., 30 ft. north (connection)..... ..... | 30 |
| Kew Beach.....N | orth ..... | " 245 ft. west of Kenilworth Ave., 190 ft. west to old main ..... | 190 |
| Laburnam Ave.... | North .... | " 131 ft. e. of Dowling Ave., 240 ft. e.. | 240 |
| Lansdowne Ave... | ..... | Across st. at south line of Rideau Ave., to connect 12 in. and 6 in. mains.... | 26 |
| Lawton Rd..... | West .... | From 130 ft. south of Clinton Ave. north to Gormally Ave..... | 1,161½ |
| Leslie St ..... | West .... | " Queen Victoria Avenue n. 113 ft.... | 145 |
| Logan Ave..... | West .... | " 470 ft. s. of Danforth Ave. 106 ft. s.. | 106 |
| Logan Ave..... | West .... | " 12 ft. n. of Danforth, 1,386½ ft. n.... | 1,386½ |
| Lucas St ..... | North .... | " 1,165 ft. west of Sorauren Ave. to Roncesvalles ..... | 213¾ |
| Lyndhurst Ave .... | South and West | " Walmer Rd. north to 393 ft. north of Nina St..... | 1,634 |
| Macauley Ave..... | North.... | " Perth Ave., 475 ft. west..... | 490 |
| Margueretta St ... | West .... | " 980 north of Bloor St., 330 ft. north. | 330 |

SCHEDULE No. 10.—*Continued.*

STATEMENT OF MAINS LAID DURING THE YEAR 1909.

| Street, Avenue, etc. | Side of Street | Location. | Length in Feet. |
|---|---|---|---|
| Marion St..... | North.... | Extn. east from old main (Norwich) . .... | 72 |
| Markham St..... | West..... | From 12 in. main St. Clair Ave., 30 ft. north (connection)..... | 30 |
| Marlboro' Cres.... | East .... | Connection across Heath st..... | 50 |
| Marmaduke St.... | North .... | From Sunnyside Ave. to Indian Rd..... | 449 |
| Medland St., W.T. | West .... | " 370 ft. s. of Annette St., 244 ft. s.... | 244 |
| Montrose Ave..... | East .... | " north line of Harbord St., 122 ft. s. | 122 |
| Morley Ave. ..... | West .... | " Queen St. east, 197 ft. north..... | 214 |
| Morrow Ave..... | West .... | " Silver Ave., 170 ft. n. to Rly. Fence.. | 190 |
| Moscow Ave..... | West .... | " 12 ft. n. of Danforth Ave., 1 397 ft. n. | 1,397 |
| Mowatt Ave..... | West .... | " 407 ft. s. of King St. to 125 ft. s. of Liberty St..... | 422 |
| Neepawa Ave. .... | South .... | " 12 ft. east of Roncesvalles Ave., 113½ ft. east to old main..... | 113½ |
| Newsham St..... | North .... | " Brock Ave., 289 ft. east..... | 339 |
| Nina St..... .. | North..... | " Lyndhurst Ave., 381 ft. west..... | 399 |
| Ontario St., W.T. | West .... | " Annette St., 436 ft. south ..... | 459 |
| Osler Ave..... | West .... | Across the C.P.R. tracks to connect to West Toronto main on east side ..... | 221½ |
| Palmerston G'rd'ns | North .... | From Palmerston Ave. to Manning Ave... | 624 |
| Pape Ave..... | West..... | " 12 ft. n. of Danforth Ave., 692 ft. n | 692 |
| Parkway Ave..... | N.W..... | " 780 ft. s.w. of Dundas St., 98 ft. w.. | 98 |
| Parkwood Ave .... | West..... | " St. Clair Ave., 172 ft. north ..... | 191½ |
| Pearson Ave..... | North . .. | " 415 ft. west of Roncesvalles Ave., west to Sunnyside..... | 108 |
| Poplar Plains Rd.. | East .... | " Macpherson Ave., 200 feet south to Davenport Rd..... | 200 |
| Pricefield Ave .... | North .... | " Scarth Rd., westerly 590 ft.. ..... | 590 |
| Radford Ave..... | North .... | " 542 ft. w. of Alhambra Ave., 72 ft. w. | 72 |
| Rhodes Ave..... | West..... | " 196 ft. north of Queen St., to 457 ft. north of Gerrard St..... | 2,760 |
| Roxboro' St. East.. | North .... | " Edgar Ave., 270 ft. east..... | 289 |
| Russell Hill Rd. .. | West..... | " St. Clair Ave , 801 ft. north..... | 819 |
| Russell Hill Rd.... | West..... | " 560 ft. north of Clarendon Ave. to St. Clair Ave..... | 499½ |
| Ruston Rd..... | West..... | " 12 in. main St. Clair Ave. to 60 ft. south (connection)..... | 60 |
| Shaw St. ..... | West..... | " St. Clair Ave., 60 ft. s. (connection)·. | 60 |
| Spadina Rd.... ... | West..... | " Austin Ave., 128 ft. north..... | 175 |
| " ..... | West..... | " Davenport Rd., 461 ft. south..... | 501 |
| " ..... | West..... | " St. Clair Ave., 480 ft. south..... | 528 |
| Sparkhall Ave..... | North .... | " 440 ft. e of Broadview Ave., 132 ft. e. | 132 |
| Stephanie Place.. | South .... | " McCaul St to St. Patrick Sq.. ... | 180 |
| Sunnyside Ave.... | West .... | " Howard Pk. Ave. to High Pk. Blvd. | 1879 |
| " " | East .... | " Wright Ave. 196 ft. south..... | 257 |
| " " .... | East .... | " 104 ft. n. of Garden Ave to 140 ft. south of Galley Ave..... .... | 637 |
| " " .... | East .... | " Marion St. 176 ft. north..... | 194½ |
| " " .... | East .... | " 267 ft. south of Marion St. to 180 ft. north of Lake Shore Rd. ..... | 239 |

SCHEDULE No. 10—*Continued.*

STATEMENT OF MAINS LAID DURING THE YEAR 1909.

| Street, Avenue, etc. | Side of Street. | Location. | Length in Feet. |
|---|---|---|---|
| Sydney Street .... | West .... | From Cottingham St. south to Marlborough Ave..... | 377½ |
| St. Clair Ave..... | | Blow out in Creek..... | 58 |
| St. Clarens Ave.... | West .... | From Lappin Ave., 103 ft. s. to old main | 149 |
| Tyrrell Ave..... | North .... | " Christie St. 12 in. main, 30 ft. w. (connection)... ..... | 30 |
| " " .... | North .... | " Christie St. 12 in. main, 50 ft. east (connection)..... | 50 |
| Vaughan Rd..... | West .... | " St. Clair Ave. 12 in. main, 30 ft. north (connection)..... ..... | 30 |
| " " .... | West .... | " St. Clair Ave. 918 ft. south..... | 967 |
| Walmer Rd..... | East .... | " Davenport Rd. 470 ft. north..... | 497 |
| " " .... | South .... | Thence 257 ft. east to Walmer Rd. main at Austin Ave..... | 257 |
| " " .... | West .... | From south line of Austin Ave at a point 24 ft. east of Walmer Rd. northwest to a point 36 ft. north of Austin Ave., thence northerly a distance of 1,249 ft. north..... | 1,385 |
| Walter St.. ..... | North .... | Extension across Sunnyside Ave..... | 46 |
| Waverley Rd..... | East .... | From 194 ft. north of Queen St. 1,172 ft. n. | 1,172 |
| Western Ave..... | East .... | " Central Ave. 616 ft. south..... | 650 |
| Westminster Ave.. | North .... | " Roncesvalles Ave. to Sunnyside Ave. | 618 |
| " " | North .... | " Sunnyside Ave. to Indian Rd..... | 562 |
| Weston Rd., W.T. | East .... | " Davenport Rd. to St. Clair Ave.... | 907 |
| Withrow Ave. .... | North .... | " 414 ft. west of Pape Ave. 48 ft. w.... | 48 |
| Wineva Avenue .. | West .... | " 200 ft. north of Queen St. 388 ft. north | 388½ |
| Woodlawn Ave. Extn. | East .... | " Woodlawn Ave. to Farnham Ave.... | 412½ |
| Wright Ave..... | North .... | " Sunnyside Ave. to Glendale Ave.... | 356 |
| Wychwood Ave. .. | West .... | " 12 in. main St. Clair Ave. 30 ft. north (connection)..... ..... | 30 |
| Yarmouth Gardens | North .... | " Palmerston Ave. to Manning Ave.. | 622 |
| Yonge St. ..... | East .... | " Heath St. to n. City limits.... ... | 630 |
| | | Total..... | 77,570¾ |
| 4-IN. SUB-MAINS: | | | |
| Castle Frank Cr... | North .... | Extension east to end of street..... | 390 |
| Hazel Ave., E. Tor. | South .... | " 75 ft. east ..... | 75 |
| Lake Front, E. Tor. | South .... | From 12 in. pumping main, east to end.. | 279 |
| Lowther Ave. .... | South .... | " Spadina Ave. 138 ft. east ..... | 184 |
| Park Place ..... | North ... | On lane in rear from Indian Gr. 121½ ft. west ..... | 169½ |
| Ridout Ave..... | North ... | From Indian Gr. 162 ft. west and 162 ft. north on lane ..... | 372 |
| Southview Ave.... | South .... | " Salem Ave. 214 ft. west..... | 230 |
| Victor Ave..... | South .... | " Logan Ave. 157 ft. east ..... | 205 |
| Virtue St..... | North .... | " Sorauren Ave. 307½ ft. east to end.. | 353½ |
| | | Total..... | 2,258 |

SCHEDULE No. 10—*Continued.*

MAINS TAKEN UP OR ABANDONED DURING THE YEAR 1909.

| Street, Avenue, etc. | Side of Street. | Location. | Length in Feet. |
|---|---|---|---|
| 12-IN SUB-MAINS: | | | |
| Lansdowne Ave. .. | | From Shirley St. to Rideau Ave. across railway tracks..... | 340 |
| 6 IN. SUB-MAINS: | | | |
| Centre Ave. ..... | West ... | From Chestnut Pl. to Christopher St.... | 460 |
| Chestnut St .. .. | West .... | " Chestnut Pl. to Hayter Street..... | 375 |
| Chestnut Pl..... | South .... | " University St. to Chestnut St..... | 556½ |
| | | Total..... | 1,391½ |
| 4-IN. SUB-MAINS: | | | |
| Rideau Ave. ..... | North .... | From 228 ft. east of Macdonell Ave. to Lansdowne Ave. ..... | 64 |
| Lansdowne Ave. .. | West .... | Across Rideau Ave..... | 60 |
| | | Total..... | 124 |

*Mains throughout the City of all Sizes and Descriptions, including those on Streets, Government, Private and other Property, at the end of the year 1909.*

| Size. | Total length in feet in use at end of 1908. | Put in during 1909. | Taken out or abandoned during 1909. | Total length in feet in use at the end of the year 1909. |
|---|---|---|---|---|
| 36-inch mains..... | 19,725¼ | ..... | ..... | 19,725¼ |
| 30-inch " ... ..... ..... | 11,242 | ... ..... ..... | ..... | 11,242 |
| 24-inch " ..... | 34,009 | ..... | ..... | 34,009 |
| 20 inch " ..... ... .... | 29,048 | .... .... | ..... | 29,048 |
| 16-inch " ..... | 10,849¾ | 368 | ..... | 11,217¾ |
| 12 inch Sub-Mains ..... | 307,700¼ | 15,581 | 340 | 322,941¼ |
| 10-inch " ..... | 14,195 | ... ..... | ..... | 14,195 |
| 8 inch " ..... | 10,118½ | ..... | ..... .... | 10,118½ |
| 6-inch " ..... . .. | 1,198,057¾ | 77,570¾ | 1,391½ | 1,274,237 |
| 4-inch " ..... | 52,412⅓ | 2,258 | 124 | 54,546½ |
| 3-inch " ..... .... | 9,980½ | ..... | ..... | 9,980½ |
| 2-inch and 4-inch service mains.. | 6,943½ | ..... | ..... | 6,943½ |
| Old 8-inch cast iron mains..... | 6,085 | ..... | ..... | 6,085 |
| | 1,709,367 | 95,777¾ | 1,855½ | 1,803,289¼ |

Total length in use at end of year 1,803,289¼ feet, or 341.532 miles.

SCHEDULE No. 10.—*Continued.* WEST TORONTO.

APPROXIMATE DESCRIPTION AND LOCATION OF MAINS IN USE AT TIME OF ANNEXATION TO THE CITY.

| Street or Avenue. | Side of Street. | Location. | Length in Feet. |
|---|---|---|---|
| 12-IN. MAINS: | | | |
| Annette St | North | From Elizabeth St. to Keele | 4,420 |
| Elizabeth St | West | " Bloor St. to 600 ft. n. of Annette | 4,000 |
| Keele St | " | " Annette to St. Clair Ave | 3,220 |
| St. Clair Ave | North | " Keele St., 1,550 ft. w | 1,570 |
| Pumping Main | | Pumping Stat. to Bloor St | 6,170 |
| | | Total | 19,380 |
| 10-IN. MAINS: | | | |
| Dundas St | North | From Keele St. w. to 370 ft. w. of Victor St. | 2,670 |
| High Park Av | West | " Dundas St. to Annette St | 970 |
| | | Total | 3,640 |
| 8 IN. MAINS: | | | |
| Albany Rd | West | From St. Clair Ave., 400 ft. n | 420 |
| 6-IN. MAINS: | | | |
| Albany Rd | West | From St. Clair Ave. to W. Toronto St | 1,030 |
| Annette St | North | " Keele St. to Dundas St | 1,380 |
| Argyle Rd | West | " St. Clair Ave. to W. Toronto St | 1,030 |
| Brighton Place | North | " Western Ave. to Willoughby | 450 |
| Campbell Ave | East | " Davenport Rd. s. to C.P.R | 1,350 |
| " | West | " St. Clair Ave., 1,110 ft. n | 1,130 |
| Carlton Pl | East | " Linder St., s. to end | 300 |
| Cawthra Ave | West | " Grove Ave. s. to Rly. Tracks | 1,650 |
| Central Ave | North | " Willoughby Ave. to Western Ave | 420 |
| Charles St | East | " Davenport Rd. to Linder St | 900 |
| Churchill Ave | " | " " " 180 ft. s. of Kingsley | 1,050 |
| Clara St | West | " Quebec Ave. s. to Beatrice | 840 |
| Clendenan Ave | West | " Dundas St. to 200 ft. s. of Rowland St. | 2,200 |
| Conduit St | North | " Willoughby Ave., 240 ft. w | 260 |
| Cooper Ave | East | " Davenport Rd. to 50 ft. s. of Kingsley | 900 |
| Davenport Rd | North | " Weston Rd. to Campbell Ave | 2,750 |
| Dundas St | " | " Keele St. to Humberside Ave | 2,370 |
| Edmund St | East | " Davenport Rd., 1,150 ft. s | 1,150 |
| Evelyn Cres | North | " Lakeview Ave. to Fairview | 500 |
| Fairview Ave | West | " Annette St., 410 ft. s | 460 |
| " | " | " Evelyn Cres. to Woodside Ave | 340 |
| " | " | " Annette St., 420 ft. n | 436 |
| " | " | " Louisa St., 343 ft. s | 390 |
| Fiskin Ave | " | " " 180 ft. n | 200 |
| Franklin Ave | North | " Argyle Rd., 340 ft. w | 360 |
| Frederick St | West | " Dundas St. to Maria St | 320 |
| Gilmore Ave | " | " Annette St., 680 ft. n | 700 |

SCHEDULE No. 10—*Continued.* WEST TORONTO.

Approximate Description and Location of Mains in Use at the Time of Annexation to the City.

| Street, Avenue, etc. | Side of Street. | Location. | Length in Feet. |
|---|---|---|---|
| Gilmore Ave | West | From Louisa St., 630 ft. s | 680 |
| Grove Ave | North | " Mulock Ave. to Cawthra Ave | 200 |
| High Pk. Ave | West | " Annette St., 350 ft. s. to Beatrice St. | 2,520 |
| Hook Ave | North | " Weston Rd. to Union St | 780 |
| Hoskin Ave | West | " Dundas St., 550 ft. n | 570 |
| Humberside Ave | North | " Western Ave. to Willoughby Ave | 450 |
| Junction Rd | " | " Mulock Ave., 150 ft. e | 150 |
| Keele St | West | " Annette St. to 400 ft. s. of Humberside Ave | 1,350 |
| " | " | " St. Clair Ave. to Weston Rd. s | 200 |
| King St | East | " " " Davenport Rd. | 1,150 |
| Kingsley Ave | North | " Laughton Ave. to Churchill Ave | 350 |
| Lakeview Ave | West | " Louisa St. to Glendonwynne Rd | 2,850 |
| Lansdowne Ave | " | " " " Dundas St | 430 |
| Laughton Ave | East | " Davenport Rd. to Kingsley Ave | 875 |
| Laws St | West | " Louisa St. to Annette St | 1,250 |
| Linder St | North | " Charles St. to Railway Tracks | 200 |
| McCormack St | " | " Weston Rd. s., 200 ft. east | 250 |
| McMurray Ave | West | " Dundas St., 550 ft. n | 570 |
| May St | " | " " to 600 ft s. of Annette | 1,250 |
| Medland St | " | " " 350 ft. s. of Annette | 1,150 |
| Mulock Ave | East | " Junction Rd. to Grove Ave | 1,250 |
| Pacific Ave | West | " Vine St. to 700 ft. s. of Beatrice | 4,100 |
| Pelham Ave | North | " Edmund St. to Laughton Ave | 950 |
| Quebec Ave | West | " Dundas St. to 670 ft. s. of Annette | 1,820 |
| " | " | " Glendonwynne Ave. to s. arm of Gothic Ave | 2,000 |
| Queen St | East | " St. Clair Ave. to Davenport Rd | 1,375 |
| St. Clair Ave | North | " Keele St. to Campbell Ave | 2,940 |
| Union Place | North | " Union St, 200 ft. w | 200 |
| " St | West | " Annette St., n. to Railway Tracks | 1,220 |
| Union Stock Yards | | " Through Alley No. 1 | 1,030 |
| " " " | | " " " No. 2 | 1,030 |
| Uttley St | East | " Pacific Ave., southerly | 750 |
| Uxbridge Ave | East | " Davenport Rd. to Pelham St | 800 |
| Van Horne St | West | " Dundas St., n. to Railway Tracks | 650 |
| Victoria St | " | " " 550 ft. n | 570 |
| Western Ave | " | " " to Humberside Ave | 1,620 |
| " " | " | " Birtle Ave. to 100 ft. n. of Brighton Place | 500 |
| Weston Rd. South | West | " Keele St., north-westerly | 1,800 |
| " Rd | East | " Dundas St. to Davenport Rd | 2,600 |
| " Rd | " | " St. Clair Ave. to 200 ft. s. of Westminster Ave | 2,450 |
| Whitney Ave | East | " Grove Ave. to St. Clair Ave | 500 |
| Willoughby Ave | West | " Annette St. to 200 ft. s. of Soho Ave. | 2,810 |
| Woodside Ave | North | " Lakeview Ave. to Fairview Ave | 400 |
| | | Total | 75,456 |

SCHEDULE No. 10.—*Continued.* WEST TORONTO.

Approximate Description and Location of Mains in Use at Time of Annexation to the City.

| Street, Avenue, etc. | Side of Street. | Location. | Length in Feet. |
|---|---|---|---|
| 4 IN. MAINS: | | | |
| Annette St..... | South .... | From Elizabeth St. w. to Murray Ave.... | 1,000 |
| Humberside Ave.. | North .... | " Willoughby Ave. to Dundas St.... | 650 |
| Jerome St..... | South .... | " " " e. (connection to City main) ..... | 150 |
| Lytton Ave. ..... | North .... | " Campbell Ave. 300 ft. e. (C.F. Co.'s S.) | 300 |
| Weston Rd. South | West .... | " McCormack St., n..... | 850 |
| | | Total..... ..... | 2,950 |

SCHEDULE No. 10.—*Continued.* EAST TORONTO.

Approximate Description and Location of Mains in Use at Time of Annexation to the City.

| Street, Avenue, etc. | Side of Street. | Location. | Length in Feet. |
|---|---|---|---|
| 12-IN. MAINS: | | | |
| Beach Ave..... | East .... | From Oak Walk to Kingston Rd. ..... | 1,900 |
| Kingston Rd..... | North .... | " Beach Ave. to Malvern St..... | 500 |
| Malvern St..... | East .... | " Kingston Rd. to Swanwick Ave..... | 1,200 |
| Swanwick Ave..... | North .... | " Malvern St. to Wayland St..... | 350 |
| Wayland St..... | East .... | " Swanwick Ave. to Gerrard St. Pumping Station..... | 600 |
| | | Total..... | 4,550 |
| 10-IN MAINS: | | | |
| Beach Ave..... | Centre ... | From Pumping Station to Oak Walk.... | 2,000 |
| 6-IN. MAINS: | | | |
| Balsam Ave..... | West .... | From Queen St., 1,070 ft. south. ..... | 1,070 |
| Beach Ave..... | West .... | " Park to Kingston Rd..... ..... | 3,480 |
| Benlamond Ave... | South .... | " Main St., 400 ft. west..... | 480 |
| Danforth Ave..... | North .... | " Main St., 2,350 ft. east..... | 2,400 |
| " .... | South .... | " Main St. to Donald St... ..... | 850 |
| Dawes Rd..... | West .... | " Danforth Ave., 850 ft. north..... | 870 |
| Gerrard St. ... .. | North .... | " Lawler Ave. to Morton Rd..... | 4,000 |
| Kimberley St. .... | West .... | " Lyall Ave. to Gerrard St..... | 1,320 |
| Kingston Rd. .... | South .... | " Beach Ave to Walter St ... ..... | 1,470 |
| " .... | North .... | " Walter St. to Main St..... | 550 |
| " .... | South .... | " Main St., 1,350 ft. west..... | 1,350 |
| Lyall Ave..... | North .... | " Pickering St. to Main St..... | 2,080 |

SCHEDULE No. 10.—*Continued.* EAST TORONTO.

APPROXIMATE DESCRIPTION AND LOCATION OF MAINS IN USE AT TIME OF ANNEXATION TO THE CITY.

| Street, Avenue, etc. | Side of Street. | Location. | Length in Feet. |
|---|---|---|---|
| Main St. | East | From Kingston Rd., 750 ft. north, thence 2,650 ft. on west side, north to Danforth Ave. | 3,400 |
| Malvern St. | West | " Lyall Ave. to Gerrard St. | 1,320 |
| Osborne St. | West | " " " | 1,320 |
| Queen St. | South | " McLean Ave. to Oak Ave. | 1,250 |
| Stephenson Ave. | North | " Main St., to 580 ft. west | 580 |
| Swanwick Ave. | South | " Main St to Norwood Rd. | 720 |
| Walter St. | West | " Kingston Rd., 230 ft. north | 240 |
| Wayland St. | West | " Lyall Ave. to Gerrard St. | 1,320 |
| | | Total | 30,070 |
| 4-IN. MAINS: | | | |
| Balfour Ave. | South | From Dawes Rd. to 560 ft. west | 580 |
| Balsam Ave. | West | " Queen St., n. & e. to Beach Ave. | 2,600 |
| Barrington Ave. | West | " Danforth Ave., 800 ft. north | 820 |
| Coleman Ave. | South | " Dawes Rd., 500 ft. west | 520 |
| Dawes Rd. | West | " Danforth Ave., 500 ft. south | 550 |
| Enderberry Rd. | West | " Gerrard St., 540 ft. north | 560 |
| Fir Ave. | North | " Balsam Ave. to Fernwood Ave. | 260 |
| Fernwood Ave. | West | " Fir Ave., 350 ft. south | 350 |
| Hannaford St. | West | " Kingston Rd. to Gerrard St. | 1,950 |
| Hazel Ave. | South | " Balsam Ave., 250 ft. east | 300 |
| Kelvin Ave. | West | " Danforth Ave. 470 ft. south | 520 |
| Luttrell Ave. | West | " " | 520 |
| McLean Ave. | East | " Queen St., 1,070 ft. south | 1,070 |
| Main St. | West | " Danforth Ave., 800 ft. north | 820 |
| Malvern St. | West | " Kingston Rd. to Lyall Ave. | 570 |
| Oaklands Ave. | West | " Danforth Ave., 850 ft. north | 890 |
| Pickering St. | West | " Kingston Rd. to Gerrard St. | 1,970 |
| Pine Ave. | South | " Beach Ave. to Balsam Ave. | 630 |
| Spruce St. | West | " Queen St. to Pine Ave. | 1,280 |
| Walter St. | West | " 230 ft. north of Kingston Rd. to Lyall Ave. | 290 |
| | | Total | 17,050 |

## SCHEDULE No. 11.

STATEMENT OF HYDRANTS PLACED IN POSITION DURING THE YEAR 1909.

| Street, Avenue, etc. | Side of Street. | Location. |
|---|---|---|
| Albany Ave | West | 17½ feet south of Davenport Rd. |
| " | " | 317½ " " " |
| " | " | 621 " " " |
| " | " | 877 " " " |
| Alvin Ave | " | 203½ " north of St. Clair Ave. |
| Arlington Ave | " | 147 " south " " 3-way. |
| " | " | 4½ " north of Benson Ave. |
| " | " | 129 " south " " 3-way. |
| " | " | 195½ " north of Tyrell Ave., " |
| Annette St., W. Tor. | South | 132 " east of Keele St., 3-way. |
| Austin Ave | " | 61 " west of Spadina Rd., 3-way. |
| Aziel St., W. Tor. | West | 255½ " south of Annette St., " |
| Bain Ave | North | 303½ " east of Pape Ave. |
| " | " | 619½ " " " |
| Boston Ave | West | 278½ " south of Gerrard St. |
| Bowden St. | " | 311½ " north of Wolfrey Ave., 3-way. |
| Campbell Ave | " | 340 " south of Wallace Ave. |
| Carlaw Ave | " | 290½ " north of Danforth Ave. |
| " | " | 642 " " " " |
| " | " | 1,001½ " " " " 3-way. |
| " | " | 1,383½ " " " " |
| Castle Frank Cres. | North | At east end of Crescent, 3 way. |
| Cedar St., E. Tor. | " | East line of Beach Ave., " |
| Chester Ave | West | 303 feet north of Danforth Ave. |
| " | " | 641½ " " " " 3-way. |
| " | " | 993 " " " " |
| " | " | 1,393¼ " " " " |
| Chestnut Park Rd. | East | 300 " " Roxboro' St. |
| Christie St. | West | 13¾ " south of St. Clair Ave., 3-way. |
| " | " | 37 " " Glenham " |
| " | " | 97 " " Benson " 3-way. |
| " | " | 194½ " north of Tyrrell " " |
| " | " | 54½ " south " " |
| " | " | 15 " north of Davenport Rd., 3-way. |
| Clinton Ave | North | 14 " west of Lawton Rd., 3-way. |
| Cluny Ave | West | About 50 feet south of Pricefield Ave., 3-way. |
| College St. | North | 278½ feet west of Sunnyside Ave., 3 way. |
| Constance Ave. | " | 21 " " Roncesvalles Ave., 3 way. |
| " " | " | 264¾ " east of Sunnyside Ave., 3 way. |
| " " | " | 303¾ " west " " " " |
| Coxwell Ave | West | 304 " north of Queen St. |
| " | " | 612 " " " |
| " | " | 956 " " " |
| " | " | 1,294 " " " |
| " | " | 1,642½ " " " |
| " | " | 1,991½ " " " |
| " | " | 2,308½ " " " |
| Dartnell Ave | West | 15½ " south of Davenport Rd., 3-way. |
| " | " | 262 " " " " " |
| Dingwall Ave | South | 10 " east of Carlaw Ave., 3-way. |
| " " | " | 273 " west of Pape Ave., 3-way. |

SCHEDULE No. 11.—*Continued.*

STATEMENT OF HYDRANTS PLACED IN POSITION DURING THE YEAR 1909.

| Street, Avenue, etc. | Side of Street. | Location. |
|---|---|---|
| Don Esplanade. .. | West ..... | At south end of Street. |
| " " .. | " ..... | North line of Eastern Ave. |
| Duggan Ave..... | North ..... | 343 feet west of Lawton Rd. |
| " ..... | " ..... | 694½ " " " " |
| " ..... | " ..... | 1,138 " " " " |
| Dundas St..... | South ..... | 68 " east of Keele St., 3-way. |
| Dunvegan Rd. .... | West..... | 295 " north of St. Clair Ave., 3 way. |
| " .... | " ..... | 138 " south of Heath St., 3-way. |
| " .... | " ..... | 113 " north " " " |
| " .... | " ..... | 397½ " " " " " |
| Durie St., W. Tor. | West..... | 290½ feet south of Annette St. |
| " " | " ..... | 594 " " |
| Eaton Ave..... | " ..... | 308 feet north of Danforth Ave., 3-way. |
| " .. ..... | " ..... | 660¼ " " " " |
| " ..... | " ..... | 1,012 " " " " |
| " ..... | " ..... | 1,403 " " " " |
| Ellesworth Ave . | North ..... | 297 feet west of Vaughan Rd., 3-way. |
| " .. | " ..... | 649 feet west of Vaughan Rd., " |
| " . | " ..... | 1,023 feet west of Vaughan Rd, |
| Emerson Ave..... | West ..... | 15 feet south of Royce Ave. |
| Exhibition Gr'nds | ..... | North side, New Transportation Bldg, 3-way. |
| " | ..... | West " " " " |
| Fairview Ave, W.T. | West..... | 163½ feet north of Woodside Ave. |
| " " | " ..... | 597 feet north of Annette St., 3-way. |
| " " | " ..... | 576½ feet south of Louisa St. |
| " .... | South ..... | 14½ feet east of Broadview Ave. |
| " .... | " ..... | 294 " " " |
| " .... | " ..... | 598 " " " 3-way. |
| " .... | " ..... | 174 feet west of Bowden St., 3-way. |
| Ferrier Ave..... | West..... | 303½ feet north of Danforth Ave., 3-way. |
| " .... | " ..... | 655 " " " |
| " .... | " .. . | 1,005½ " " " |
| " .... | " ..... | 1,394½ " " " |
| Forest Hill Rd.... | " ..... | 199½ feet north of St. Clair Ave., 3-way. |
| " .... | " ..... | 498½ " " " " " |
| " .. . | " ..... | 380½ feet north of Heath St., 3-way. |
| Galley Ave..... | South ..... | 218½ feet west of Macdonnell Ave, 3-way. |
| Galt Ave..... | East.. | 284½ feet north of Dagmar Ave., " |
| Garden Ave..... | North ..... | 9½ feet east of Sunnyside Ave. |
| Glasgow Ave..... | West..... | North of Lane, 3-way. |
| Glen Ave..... .. | North ..... | 328 feet east of Yonge St. |
| " ..... | " .. ... | 600 " " |
| Glendale Ave..... | West..... | 324½ feet south of Wright Ave., 3-way. |
| Globe Ave..... | North ..... | 291½ feet east of Pape Ave , 3-way. |
| " ..... | " ..... | 619 " " " |
| Gormally Ave..... | " ..... | 303½ feet west of Lawton Rd. |
| " .... | " ..... | 607 " " |
| " .... | " ..... | 907 " " 3-way. |
| " .... | " ..... | 1,179½ " " " |
| Grace St..... | East..... | 2,018 feet north of College St. |
| " ..... | " ..... | 526½ feet south of Bloor St., 3 way. |

SCHEDULE No. 11.—*Continued.*

STATEMENT OF HYDRANTS PLACED IN POSITION DURING THE YEAR 1909.

| Street, Avenue, etc. | Side of Street. | Location. |
|---|---|---|
| Hazelwood Ave.... | North ..... | 330 feet west of Jones Ave., 3-way. |
| Heath St..... | " ..... | 235½ feet west of Lawton Rd. |
| " ..... | " ..... | 592 " " 3-way. |
| " ..... | " ..... | 941 " " |
| Helena Ave..... | " ..... | 303¼ feet west of Vaughan Rd. |
| " ..... | " ..... | 666½ feet west of Vaughan Rd. |
| " ..... | " ..... | 1,030¼ feet west of Vaughan Rd. |
| " ..... | " ..... | 1,321 " " 3-way. |
| Highlands Ave.... | South ..... | 622¾ feet west of Schofield Ave., " |
| " .... | " ..... | 939¼ " " " |
| " .... | West..... | At west end of Oval, 3-way. |
| High Pk. Blvd.... | North ..... | 255½ feet east of Sunnyside Ave., 3-way. |
| Hogarth Ave..... | South ..... | 43½ feet west of Logan Ave. |
| " ..... | " ..... | 370½ " " |
| " ..... | " ..... | 107½ feet east of Hampton Ave. |
| " .. .. | " ..... | 128½ feet west " |
| " ..... | " ..... | 99 feet west of Bowden St. |
| " ..... | " ..... | 462 " " |
| Howland Ave..... | West..... | 14¾ feet south of Davenport Rd. |
| " .... | " ..... | 352 " " |
| " .... | " ..... | 679½ " " |
| Kendall Ave..... | East ..... | 14½ " " 3-way. |
| " " ..... | " ..... | 329½ " " |
| Lake Shore Rd.... | North ..... | 330 feet east of Indian Rd., 3 way. |
| Lake Front, E.T.. | South ..... | At east end., " |
| Lawton Road .... | West ..... | 297 feet north of Clinton Ave., " |
| " " .... | " ..... | 12½ feet south of Duggan Ave., " |
| " " .... | " ..... | 14 " Gormally Ave. |
| Logan Ave..... | " ..... | 574 " Danforth Ave. |
| " " ..... | " ..... | 295 feet north of " " 3-way. |
| " " ..... | " ..... | 656 " " " |
| " " ..... | " ..... | 1,007½ " " " |
| " " .. ..... | " ..... | 1,389 " " " 3-way. |
| Lyndhurst Ave.... | " ..... | 120 feet south of Nina St. |
| " " .... | " ..... | 118 feet north " |
| " " .... | " ..... | 361 " " |
| Macaulay Ave..... | North ..... | 330¾ feet west of Perth Ave, 3-way. |
| Margueretta St. .. | West ..... | 1,286¾ feet north of Bloor St. |
| Marmaduke St.... | North ..... | 189½ feet west of Sunnyside Ave., 3-way. |
| Medland Ave., W.T. | West ..... | 612 feet south of Annette St., " |
| Morley Ave..... | " ..... | 194¾ feet north of Queen St., 3-way. |
| Moscow Ave..... | " ..... | 323 feet north of Danforth Ave. |
| " " ..... | " ..... | 686½ " " " " 3-way. |
| " " ..... | " .... | 1,045½ " " " |
| " " ..... | " ..... | 1,598 " " " |
| Mowatt Ave..... | " ..... | 27¼ feet south of Liberty St., 3-way. |
| Newsham St..... | North ..... | 287 feet east of Brock Ave., " |
| Nina St..... | " ..... | 298½ feet west of Lyndhurst Ave. |
| Ontario St., W.T.. | West ..... | 302 feet south of Annette St., 3-way. |
| Palmerston Grdns. | North ..... | 297 feet west of Palmerston Ave., 3-way. |

SCHEDULE No. 11.—*Continued.*

STATEMENT OF HYDRANTS PLACED IN POSITION DURING THE YEAR 1909.

| Street, Avenue, etc. | Side of Street. | Location. |
|---|---|---|
| Pape Ave. | West | 302 feet north of Danforth Ave. |
| " " | " | 654 " " " |
| Parkwood Ave. | " | 170½ " St. Clair Ave. |
| Pricefield Ave. | North | About 260 feet East of Cluny Ave. |
| Rhodes Ave. | West | 494½ feet north of Queen St. |
| " " | " | 803½ " " |
| " " | " | 1,167¾ " " |
| " " | " | 1,521¾ " " 3-way. |
| " " | " | 560½ feet south of Gerrard St. |
| " " | " | 214 " " |
| " " | " | 81¼ feet north " |
| " " | " | 384½ " " |
| Rideau Ave. | North | 228 feet east of Macdonnell Ave. |
| Ridout Ave.-Lane. | | |
| North of Same | East | 142 feet north of Ridout Ave. |
| Roxboro' St. East. | North | 270 feet east of Edgar Ave. |
| Runnymede Rd., W.T. | West | 6 feet south of Colbeck St. |
| Russell Hill Rd. | " | 323 " St. Clair Ave., 3-way. |
| " " | " | 14 feet north of St. Clair Ave., " |
| " " | " | 354½ feet north of St. Clair Ave., " |
| " " | " | 798 " " " " |
| Scollard St. | North | 23 feet east of Hazelton Ave., " |
| Spadina Rd. | West | 17 feet south of Davenport Rd. |
| " " | " | 337 " " |
| " " | " | 478 " St. Clair Ave. |
| " " | " | 118 feet north of Austin Ave., 3-way. |
| Sunnyside Ave. | " | 13 feet south of Constance Ave., W., 3-way. |
| " " | " | 14 feet north of High Park Blvd., " |
| Sydney St. | " | 200½ feet south of Cottingham St. |
| St. Clair Ave. | North | 231 feet west of Yonge St. |
| " | " | 547 " " " 3-way. |
| " | " | 838 " " " " |
| " | " | 5 " " Spadina Rd., 3-way. |
| " | " | 42 " " Kendall Ave (approx.),3-way. |
| " | " | 12 " east of Bathurst St., 3-way. |
| " | " | East line of Markham St., 3-way. |
| " | " | 13 feet west of Vaughan Rd., 3-way. |
| " | " | 141¼ " " Kenwood Ave. |
| " | " | 44¾ " " Frederick St. |
| " | " | 165½ " " Humewood Ave., 3-way. |
| " | " | 65 " " Ruston Rd., 3-way. |
| " | " | 44 " " Arlington Ave., 3-way. |
| " | " | 88 " east of Kennedy Ave., 3 way. |
| " | " | 22 " west of Hendrick St., 3-way. |
| St. Patrick Sq. | East | South-east corner of Stephanie Pl. |
| Trinity Sq. | " | South of Church Porch at west side of Square. 3-way. |
| Vaughan Rd. | West | 16 feet north of Ellesworth Ave. |
| " | " | Opposite south line of St. Alban's Ave. |
| " | " | 4½ feet north of Helena Ave. |
| Virtue St. | North | East end of Street. |

SCHEDULE No. 11.—*Continued.*

STATEMENT OF HYDRANTS PLACED IN POSITION DURING THE YEAR 1909.

| Street, Avenue, etc. | Side of Street. | Location. |
|---|---|---|
| Walmer Rd..... | West ..... | 499¼ feet north of Austin Ave., 3-way. |
| " ..... | " ..... | 779½ " " " " " |
| " ..... | " ..... | 1,082½ " " " " 3-way. |
| " ..... | " ..... | 1,281½ " " " " " " |
| Waverley Rd. .... | East ..... | 308½ " " Queen St. |
| " .... | " ..... | 660 " " " |
| " .... | " ..... | 1,023 " " " |
| " .... | " ..... | 1,364 " " " 3 way. |
| Western Ave., W.T. | East ..... | 312 " south of Central Ave. |
| " " | " ..... | 621 " " " " |
| Weston Rd. " | " ..... | 258 " " St. Clair Ave., 3-way. |
| " " | " ..... | 557 " " " " " |
| Westminster Ave.. | North ..... | 14 " east of Sunnyside Ave., " |
| " | " ..... | 278 " west of Roncesvalles Ave., 3-way. |
| " | " ..... | 243¾ " west of Sunnyside Ave. |
| " | " ..... | 8 " east of Indian Rd. |
| Wineva Ave..... | West ..... | 554 " north of Queen St. |
| Wright Ave..... | North ..... | 4 " east of Glendale Ave. |
| Yarmouth Gardens | " ..... | 291 " east of Manning Ave., 3 way. |
| Yonge St. ..... | East ..... | 156½ " south of Glen Ave., 3-way. |
| " ..... | " ..... | 67½ " north " " |
| 3-WAY HYDRANTS REPLACING 2-WAY | | ALREADY IN POSITION. |
| Ann St..... | North ..... | North-east corner of Yonge St. |
| Arthur St..... | South..... | South-west corner of Euclid Ave. |
| Balsam Ave., E.T. | West..... | 700 feet south of Queen St. |
| Beach Ave., " | ..... | |
| " " | ..... | 310 feet south of Queen St. |
| Brock Ave..... | West..... | 120 feet south of Bloor St. |
| Brunswick Ave ... | East ..... | 180 feet south of Harbord St. |
| Dufferin St..... | ..... | South of Track. |
| Dupont St..... | North ..... | 311 feet east of Shaw St. |
| Exhibition Gr'nds. | ..... | |
| Front St..... | South..... | 320 feet east of York St. |
| Hamilton St..... | East ..... | 40 feet north of Elliott St. |
| Lansdowne Ave.... | West..... | South-west of Dundas St. |
| Main St., E. Tor.. | ..... | North-west corner of Gerrard St. |
| McCaul St..... | East..... | Opposite D'Arcy St. |
| Oak St..... | South..... | At east end of street. |
| Ontario St..... | West..... | North-west of Queen St. |
| Queen St..... | North ..... | North-east corner of Broadview Ave. |
| Riverdale Ave..... | " ..... | 27 feet west of Logan Ave. |
| Robert St..... | East ..... | South-east of Bloor St. |
| Roncesvalles Ave.. | " ..... | North-east corner of Queen St. |
| Simcoe St..... | " ..... | South-east corner Cær Howell St. |
| Sunnyside Ave.... | " ..... | 172 feet north of Queen St. |

SCHEDULE 11.—*Continued.*

STATEMENT OF HYDRANTS PLACED IN POSITION DURING THE YEAR 1909.

| Street, Avenue, etc. | Side of Street. | Location. |
|---|---|---|
| 2-WAY HYDRANTS REMOVED FROM OFF THE STREET. | | |
| Centre Ave. | West | South-west corner of Chestnut Pl. |
| " | " | Between Chestnut Pl. and Christopher St. |
| Chestnut Pl. | South | 1,273¼ feet west of Chestnut St. |
| Chestnut St. | West | South-west corner of Chestnut Pl. |
| Eastern Ave | North | Opp. Don Esplanade Rd. (or old Crematory). |
| Glasgow Ave. | West | At north end of street. |
| Hogarth Ave. | North | 862 feet east of Broadview Ave. |
| " | " | 600 feet east of Bowden St. |
| Lakeshore Rd. | " | 150 feet east of Indian Rd. |
| Rideau Ave. | " | North-west corner of Lansdowne Ave. |
| Scollard St. | " | East line of Hazelton Ave. |
| St. Patrick Sq. | East | 279 feet north of Queen St. |
| Trinity Sq. | West | Opposite Church porch (west). |

SUMMARY OF HYDRANTS—1909.

| | |
|---|---|
| Number of hydrants of all kinds on streets at end of 1908 | 3,613 |
| Number of hydrants of all kinds on private property | 112 |
| | 3,725 |
| There were removed from off the streets, 13 2-way hydrants; and 23 2-way hydrants were replaced by 3-way hydrants | 36 |
| | 3,689 |
| Number of additional hydrants set on streets during 1909 | 220 |
| Number of additional hydrants set on private property during 1909 | 2 |
| | 3,911 |
| 3-way hydrants replacing 2-way hydrants already on streets | 23 |
| Total | 3,934 |

SCHEDULE No. 11—*Continued.* EAST TORONTO.

APPROXIMATE LOCATION OF HYDRANTS IN USE AT TIME OF ANNEXATION TO THE CITY.

| Street, Avenue, etc. | Side of Street. | Location. |
|---|---|---|
| Balfour Ave. | South | 170 feet west of Dawes Rd. |
| " " | " | 545 " " |
| Balsam Ave. | West | South-west corner of Queen St. |
| " " | " | 360 feet south " " |
| " " | " | 700 " " " |
| " " | " | 1,040 " " " |
| " " | " | 170 feet north " " |
| " " | " | 470 " " " |
| " " | " | 830 " " " |
| " " | " | 35 feet south of Pine Ave. |
| " " | " | 120 feet north " " |
| " " | " | 425 " " " |
| Barrington Ave. | " | 280 " of Danforth Ave. |
| " " | " | 560 " " " |
| " " | " | 805 " " " |
| Beech Ave. | " | South end of Beech Ave. |
| " " | " | " line of Hazel " |
| " " | " | South-west corner of Queen St. |
| " " | " | 90 feet north of Queen St. |
| " " | " | 615 " " |
| " " | " | 970 " " |
| " " | " | North-west corner of Pine Ave. |
| " " | " | 440 feet north " |
| " " | " | 50 feet south of Balsam Ave. |
| " " | " | South west corner of Kingston Rd. |
| Benlamond Ave. | South | 350 feet west of Main St. |
| Coleman Ave. | " | 160 " Dawes Rd. |
| " " | " | 485 " " |
| Danforth Ave. | " | South-east corner of Donald St. |
| " " | " | 60 feet west of Oaklands Ave. |
| " " | " | South-west corner of Main St. |
| " " | North | 145 feet east of Main St. |
| " " | " | 190 " Barrington Ave. |
| " " | " | 660 " " " |
| " " | " | 120 feet west of Dawes Rd. |
| " " | " | 120 feet east " " |
| " " | " | Opposite east line of Kelvin St. |
| " " | " | 100 feet east of Luttrell Ave. |
| Dawes Rd. | West | 130 feet south of Danforth Ave. |
| " " | " | 100 feet north of Coleman Ave. |
| " " | " | 100 " Danforth Ave. |
| " " | " | 120 " Balfour Ave. |
| Enderberry Rd. | " | North-west corner of Gerrard St. |
| " " | " | 450 feet north " |
| Fernwood Ave. | " | 310 feet south of Fir Ave. |
| Fir Ave. | South | South-west corner of Fernwood Ave. |
| Gerrard St. East. | North | 220 feet west of Woodlee Ave. |
| " " | " | Opposite east line of Woodlee Ave. |
| " " | " | North-west corner of Norwood Rd. |
| " " | " | Opposite west line of Kimberley St. |
| " " | " | " " Osborne St. |

SCHEDULE No. 11—*Continued.* EAST TORONTO.

APPROXIMATE LOCATION OF HYDRANTS IN USE AT TIME OF ANNEXATION TO THE CITY.

| Street, Avenue, etc. | Side of Street. | Location. |
|---|---|---|
| Gerrard St. East.. | North ..... | Opposite west line of Wayland St. |
| " " .. | " ..... | " " Malvern St. |
| " " .. | " ..... | " " Hannaford St. |
| " " .. | " ..... | " " Pickering St. |
| " " .. | " ..... | " " Lawlor Ave. |
| Hannaford St..... | West ..... | 215 feet North of Kingston Rd. |
| " " .. | " ..... | 25 feet north of Lyall Ave. |
| " " .. | " ..... | 240 feet south of Swanwick Ave. |
| " " .. | " ..... | South-west corner of Swanwick Ave. |
| " .... | " ..... | 230 feet north of Swanwick Ave. |
| Hazel Ave..... .. | South ..... | South west corner of Laurel Ave. |
| Kelvin Ave. ..... | West ..... | 160 feet south of Danforth Ave. |
| " ..... | " ..... | 470 " " |
| Kimberley St. .... | " ..... | North-west corner of Lyall Ave. |
| " .... | " ..... | South-west corner of Swanwick Ave. |
| " .... | " ..... | 300 feet north of Swanwick Ave. |
| Kingston Rd.. .. | South ..... | 370 " west of Lee Ave. |
| " ..... | " ..... | 100 " " " |
| " ..... | " ..... | 125 " east " |
| " ..... | " ..... | 200 " west of Main St. |
| " ..... | " ..... | Opposite east line of Main St. |
| " ..... | " ..... | 325 feet east of Walter St. |
| " ... .. | " ..... | 210 " west of Malvern St. |
| " ....... | " ..... | 130 " east " |
| Luttrell Ave..... | West ..... | 125 " south of Danforth Ave. |
| " ..... | " ..... | 465 " " " |
| MacLean Ave. .... | East ..... | 320 " south of Queen St. |
| " .... | " ..... | 700 " " " |
| " .... | " ..... | 1,050 " " " |
| Main St..... | " ..... | 350 " north of Kingston Rd. |
| " ..... | " ..... | Opposite north line of Benlamond Ave. |
| " ..... | " ..... | South east corner of Swanwick Ave. |
| " ..... | West ..... | 290 feet north of Swanwick Ave. |
| " ..... | " ..... | North west corner of Gerrard St. |
| " ..... | " ..... | " Bridge St. |
| " .... .... | " ..... | " Stephenson Ave. |
| " ..... | " ..... | 120 feet north of Danforth Ave. |
| " ..... | " ..... | 350 " " " |
| " ..... | " ..... | 670 " " " |
| Malvern St. ..... | West .... | North west corner of Lyall Ave. |
| " ..... | " ..... | " " Swanwick Ave. |
| Oaklands Ave. .... | " ..... | 250 feet north of Danforth Ave. |
| " .... | " ..... | 550 " " " |
| " .... | " ..... | 820 " " " |
| Osborne St. ..... | " ..... | North-west corner of Lyall Ave. |
| " ..... | " ..... | 300 feet north " |
| " ..... | " ..... | South-west corner of Swanwick Ave. |
| " ..... | " ..... | 285 feet north " |
| Pickering St..... | " ..... | North-west corner of Kingston Rd. |
| " ..... | " ..... | 310 feet south of Lyall Ave. |
| " ..... | " ..... | North west cor. " |

SCHEDULE No. 11—*Continued.* EAST TORONTO.

APPROXIMATE LOCATION OF HYDRANTS IN USE AT TIME OF ANNEXATION TO THE CITY.

| Street, Avenue, etc. | Side of Street. | Location. |
|---|---|---|
| Pickering St..... | West ..... | 290 feet north of Lyall Ave. |
| " ..... | " ..... | South-west corner of Swanwick Ave. |
| " ..... | " ..... | 235 feet north " |
| Queen St. east .... | South ..... | South-west corner of Oak Ave. |
| Spruce Ave. ..... | West ..... | 165 feet north of Queen St. |
| " ..... | " ..... | 475 " " |
| " ..... | " ..... | North line of Oak Ave. |
| " ..... | " ..... | 40 feet south of Pine Ave. |
| Stephenson Ave. .. | North ..... | 350 " west of Main St. |
| Swanwick Ave.... | South ..... | Opposite Norwood Rd. |
| " .... | " ..... | " west line of Enderberry Rd. |
| Wayland St..... | West ..... | North-west corner of Lyall Ave. |
| " ..... | " ..... | 260 feet south of Gerrard St. |
| " ..... | " ..... | South-west corner of Swanwick Ave. |
| " ..... | " ..... | 290 feet south of Swanwick Ave. |

WEST TORONTO.

APPROXIMATE LOCATION OF HYDRANTS IN USE AT TIME OF ANNEXATION TO THE CITY.

| Street, Avenue, etc. | Side of Street. | Location. |
|---|---|---|
| Albany Rd. ..... | West ..... | 380 feet north of St. Clair Ave. |
| " " ..... | " ..... | North-west corner of " " |
| " " ..... | " ..... | 450 feet south of " " |
| " " ..... | " ..... | South side of West Toronto St. |
| Annette St. ..... | South ..... | South-east corner of Murray Ave. |
| " " ..... | North ..... | Opposite west line of Willoughby Ave. |
| Argyle Rd..... | West ..... | South-west corner of St. Clair Ave. |
| " " ..... | " ..... | " " Franklin " |
| " " ..... | " ..... | " " Ethel " |
| Brighton Pl..... | North ..... | North-east " Western " |
| Campbell Ave..... | East ..... | 160 feet south of Brandon " |
| " " .... | " ..... | North-east corner of Collins " |
| Carlton Pl..... | " ..... | 180 feet south of Linder St. |
| Cawthra Ave. .... | West ..... | South end of street |
| " " .... | " ..... | South-west corner of Junction Rd. |
| " " .... | " ..... | 200 feet north of " |
| " " .... | " ..... | South-west corner of Herbert Ave. |
| " " .... | " ..... | 200 feet north of " " |
| " " .... | " ..... | 500 " " " |
| Central Ave..... | North ..... | North east corner of Western " |
| Charles St. ..... | East ..... | 250 feet north of Linder St. |
| " " ..... | " ..... | 260 feet south of Davenport Rd. |
| Churchill Ave..... | " ..... | 230 " " " |
| " " .... | " ..... | 540 " " " |

SCHEDULE No. 11—*Continued.* WEST TORONTO.

APPROXIMATE LOCATION OF HYDRANTS IN USE AT TIME OF ANNEXATION TO THE CITY.

| Street, Avenue, etc. | Side of Street. | Location. |
|---|---|---|
| Clara St. | West | Opposite north line of Beatrice St. |
| " " | " | 320 feet north of " |
| " " | " | 150 feet south-west of Quebec Ave. |
| Clendenan Ave. | " | 350 feet south of Dundas St. |
| " " | " | 800 " " |
| " " | " | North-west corner of Annette St. |
| " " | " | " " Thomas St. |
| Conduit St | North | 240 feet west of Willoughby Ave. |
| Cooper Ave. | East | 350 feet south of Davenport Rd. |
| " " | " | 750 " " " |
| Davenport Rd. | North | North-east corner of King St. |
| " " | " | " " Queen St. |
| " " | " | 300 feet west of Uxbridge Ave. |
| " " | " | Opposite east line of Uxbridge Ave. |
| " " | " | North-east corner of Laughton " |
| " " | " | Opposite east line of Churchill " |
| " " | " | " " Cooper " |
| " " | " | " Campbell Ave. South. |
| Dundas St. | " | 250 feet west of St. John's Pl. |
| " " | " | Opposite west line of Clendenan Ave. |
| " " | " | 100 feet west of Hoskin Ave. |
| " " | " | North-west corner of McMurray Ave. |
| " " | " | North-east corner of Pacific Ave. |
| " " | " | 100 feet east of Medland St. |
| " " | " | 70 feet east of May St. |
| " " | " | North-west corner of Van Horne St. |
| " " | " | " " Union St. |
| " " | " | Opposite west line of Western Ave. |
| " " | " | 150 feet east of Bruce St. |
| " " | " | North-west corner of Weston Rd. |
| " " | West | 300 feet north of Humberside Ave. |
| Edmund St. | East | 300 feet south of Davenport Rd. |
| " " | " | Opposite south line of Linder St. |
| Fairview Ave. | West | 300 feet south of Louisa St. |
| " " | " | 350 feet north of Annette St. |
| " " | " | North-west corner of Annette St. |
| Fairview Ave. | " | 240 feet south of Annette St. |
| Franklin " | North | 330 " west of Argyle Rd. |
| Frederick St. | " | North-west corner of Dundas St. |
| Gilmore Ave. | " | " " Annette St. |
| " | " | 500 feet north of " |
| " | " | South-west corner of Vernon St. |
| High Park Ave. | " | 280 feet south of Dundas St. |
| " | " | 600 " " " |
| " | " | South-west corner of Annette St. |
| " | " | 260 feet south " |
| " | " | 640 " " |
| " | " | South-west corner of Humberside Ave. |
| " | " | 350 feet south " |
| " | " | 770 " " |
| " | " | 250 " of Beatrice St. |

SCHEDULE No. 11—*Continued.* WEST TORONTO.

APPROXIMATE LOCATION OF HYDRANTS IN USE AT TIME OF ANNEXATION TO THE CITY.

| Street, Avenue, etc. | Side of Street. | Location. |
|---|---|---|
| Hoskin Ave. | North | North end of street. |
| Humberside Ave. | " | North-east corner of Western Ave. |
| " | " | North-west corner of Dundas St. |
| Keele St. | West | South-west corner of Humberside Ave. |
| " | " | North-west corner of Annette St. |
| " | " | South-west corner of Dundas St. |
| " | " | 200 feet north " |
| " | " | Opposite north line of Junction Rd. |
| " | " | North-west corner of W. Toronto St. |
| " | " | Opposite south line of Grove Ave. |
| King St. | East | South east corner of Carlton St. |
| " | " | 350 feet south of St. Clair Ave. |
| Kingsley Ave. | North | 140 " east of Laughton Ave. |
| Lakeview Ave. | West | 350 " south of Louisa St. |
| " | " | 600 " north of Annette St. |
| " | " | 330 " " |
| " | " | North-west corner " |
| " | " | 300 feet south " |
| " | " | North-west corner of Woodside Ave. |
| " | " | 150 feet south of Evelyn Cres. |
| Laughton Ave. | East | 300 " Davenport Rd. |
| " | " | 700 " " |
| Laws St. | West | South-west corner of Louisa St. |
| " | " | 350 feet south " |
| " | " | 750 " " |
| " | " | North-east corner of Annette St. |
| Louisa St. | North | Opposite east line of Lakeview Ave. |
| " | " | " Fairview Ave. |
| " | " | North-west corner of Lansdowne Ave. |
| " | " | " Fiskin Ave. |
| McCormack St. | " | 40 feet east of Weston Rd., south. |
| " | " | 200 " " |
| McMurray Ave. | West | North end of street. |
| Maria St. | North | Opposite west line of St. John's Pl. |
| " | " | 330 feet east of Frederick St. |
| " | " | Opposite west line of Frederick St. |
| " | " | 375 feet west Frederick St. |
| May St. | West | 200 " south of Dundas St. |
| " | " | North-west corner of Annette St. |
| " | " | 260 feet south " |
| " | " | 580 " " |
| Medland St. | " | South-west corner of Dundas St. |
| " | " | 320 feet south " |
| " | " | North west corner of Annette St. |
| " | " | 250 feet south of Annette St. |
| Mulock Ave. | East | North-east corner of Junction Road. |
| " | " | 310 feet north of Junction Rd. |
| " | East | North-east corner of Herbert Ave. |
| " | " | 360 feet north " " |

SCHEDULE No. 11—*Continued.* WEST TORONTO.

APPROXIMATE LOCATION OF HYDRANTS IN USE AT TIME OF ANNEXATION TO THE CITY.

| Street, Avenue, etc. | Side of Street. | Location. |
|---|---|---|
| Pacific Ave. | West | South-west corner of Vine Ave. |
| " " | " | 150 feet south of Dundas St. |
| " " | " | 460 " " |
| " " | " | South-west corner of Annette St. |
| " " | " | 370 feet south " " |
| " " | " | 690 " " " |
| " " | " | 100 " of Humberside Ave. |
| " " | " | 500 " " " |
| " " | " | 300 feet north of Beatrice St. |
| " " | " | North-west corner of Beatrice St. |
| " " | " | 260 feet south " |
| " " | " | 610 " " |
| Pelham Ave. | North | North east corner of Edmund St. |
| " " | " | 240 feet east " |
| " " | " | North-east corner of Uxbridge Ave. |
| Quebec Ave. | West | 300 feet south of Dundas St. |
| " " | " | 710 " " |
| " " | " | North-west corner of Annette St. |
| " " | " | 270 feet south " |
| " " | " | 680 " " |
| " " | " | 500 ft. north of Beatrice St. |
| " " | " | 870 " " |
| " " | " | 200 ft. south " |
| " " | " | 520 " " |
| " " | " | 900 " " |
| Queen St. | East | 150 " of St. Clair Ave. |
| " " | " | South-east corner of Carlton St. |
| Rowland St. | North | 200 feet west of Clendenan Ave. |
| St. Clair Ave. | " | 800 " Keele St. |
| " " | " | 200 " " |
| " " | " | North-west corner of " |
| " " | " | 270 feet east of " |
| " " | " | 340 feet west of Weston Rd. |
| " " | " | North-west corner of " |
| " " | " | 230 feet east of Weston Rd. |
| " " | " | 600 " " |
| " " | " | 360 feet west of Campbell Ave. |
| Uttley St. | East | 250 feet north of Beatrice St. |
| " " | " | 550 " " |
| Union Stock Yards | West | Alley No. 2, 450 feet south of St. Clair Ave. |
| " " | " | South side of West Toronto St. |
| " " | " | Alley No. 1, 440 feet south of St. Clair Ave. |
| " " | " | South side of West Toronto St. |
| Union St. | " | 120 feet north of Hook Ave. |
| " " | " | South west corner of Wilson Pl. |
| Uxbridge Ave. | East | 340 feet south of Davenport Rd. |
| Van Horne St. | West | 260 feet north of Dundas St. |
| Victoria St. | " | 130 " " |
| " " | " | 540 " " |
| Vine Ave. | North | North-west corner of Keele St. |

SCHEDULE No. 11—*Continued.* WEST TORONTO.

APPROXIMATE LOCATION OF HYDRANTS IN USE AT TIME OF ANNEXATION TO THE CITY.

| Street, Avenue, etc. | Side of Street. | Location. |
|---|---|---|
| Vine Ave. | North | 560 feet west of Keele St. |
| " " | " | 300 feet east of McMurray Ave. |
| Western Ave. | West | North-west corner of Annette St. |
| " " | " | 275 feet south of " |
| Weston Rd. | East | Opposite Oak Ave. |
| " " | " | " Campbell Mill |
| " " | " | 350 feet north of St. Clair Ave. |
| " " | " | 700 " " |
| " " | " | North-east corner of Davenport Rd. |
| " " | " | 1,050 feet north of St. Clair Ave. |
| " " | " | 1,400 " " |
| " " | " | 1,750 " " |
| " " | " | 2,100 " " |
| " " | " | 2,450 " " |
| Willoughby Ave. | West | 280 feet south of Annette St. |
| " " | " | South-west corner of Humberside Ave. |
| " " | " | North-west corner of Brighton Pl. |
| " " | " | " Conduit St. |
| " " | " | " Central Ave. |
| " " | " | Opposite Soho Ave. |
| Whitney Ave. | East | 250 feet south of St. Clair Ave. |

## SCHEDULE No. 12.

TOTAL LIST OF ALL VALVES PLACED IN POSITION DURING THE YEAR 1909, SHOWING THE SIZE, LOCATION, ETC.

| Street, Avenue, etc. | Side of Street. | Location. |
|---|---|---|
| 16-in. STOP VALVES: | | |
| Dundas St. | South | East line of Annette St. |
| Royce Ave | " | West line of Dundas St. railway fence. |
| 12-in. STOP VALVES: | | |
| Annette St | East | South line of Dundas St. |
| Bathurst St | " | North line of Wells St. |
| " | " | North line of St. Clair Ave. |
| " | " | South " " |
| Beach Ave., E. T. | " | 3 feet north of Park fence. |
| " | " | East Toronto Pumping Station. |
| Christie St | West | South line of St. Clair Ave. |
| " | " | North line of Tyrrell Ave. |
| " | " | South " |
| " | " | North line of Davenport Rd. |
| Davenport Rd. | North | West line of Christie St. |
| " | " | East " |
| Dundas St | South | West line of Annette St. |
| " | " | East line of Keele St. |
| " | North | West line of Lansdowne Ave. |
| Keele St | East | Opposite south line of Annette St. west. |
| Lansdowne Ave | South | West line of Lansdowne subway (north end). |
| " | East | Opposite south line of Rideau St. |
| Queen St. east | North | East line of McLean Ave. |
| " | " | West line of Beach Ave. |
| St. Clair Ave. | " | West line of Yonge St. |
| " | " | East line of Spadina Rd. |
| " | " | West " |
| " | " | East of Creek. |
| " | " | West " |
| " | " | East line of Bathurst St |
| " | " | West " |
| " | " | West line of Vaughan Rd. |
| " | " | East line of Christie St. |
| " | " | West " |
| " | " | West line of Arlington Ave. |
| " | " | West line of Kennedy Ave. |
| 6-IN. STOP VALVES: | | |
| Albany Ave | West | South line of Davenport Rd. |
| Alvin Ave | " | North Line of St. Clair Ave. |
| Arlington Ave | " | South " |
| " | " | North line of Tyrrell Ave. |
| Austin Ave. | South | Opposite east line of Walmer Rd. north. |
| Avondale Ave | East | South line of Rosedale Rd. |
| " | West | North line of Park Rd. |
| Aziel St., W. Tor. | " | South line of Annette St. |
| Bathurst St | " | Foot of Queen's Wharf, 40 feet s. of last hydrant. |
| Bain Ave. | North | East line of Pape Ave. |
| Benson Ave. | " | West line of Christie St. |

SCHEDULE No. 12.—*Continued.*

TOTAL LIST OF ALL VALVES PLACED IN POSITION DURING THE YEAR 1909, SHOWING THE SIZE, LOCATION, ETC.

| Street, Avenue, etc. | Side of Street. | Location. |
|---|---|---|
| Benson Ave. | North | East line of Christie St. |
| Binscarth Rd. | South | West line of Glen Rd. |
| Boston Ave. | West | South line of Gerrard St. |
| Bowden St. | " | South line of Wolfrey Ave. |
| " | " | North " |
| Campbell Ave. | " | South line of Wallace Ave. |
| Carr St. | North | East line of Ryerson Ave. |
| Castle Frank Ave. | West | South line of Dale Ave. |
| Centre Ave. | West | South line of Christopher St. |
| Chester Ave. | West | North line Danforth Ave. |
| Chestnut Park Rd. | North | East line of Centre Leg. |
| Christie St. | West | South line of Davenport Rd. |
| Clinton Ave. | North | West line of Lawton Rd. |
| Cluny Ave. | West | South line of Pricefield Ave. |
| " | " | North line of Rowanwood Ave. |
| College St. | North | West line of Sunnyside Ave. |
| Conduit St. | " | East line of Willoughby Ave. |
| Constance Ave. | " | East line of Sunnyside Ave. |
| " | " | West " " |
| Coxwell Ave. | West | North line of Queen St. |
| Dartnell Ave. | " | South line of Davenport Rd. |
| Davenport Rd. | North | 22½ feet west of Walmer Rd. |
| " | " | East line of Bathurst St. |
| " | " | West " " |
| " | " | 12 feet west of Wychwood Pk., 4-in. main. |
| " | " | East line of Christie St. south. |
| Dearbourne Ave. | South | West line of Bowden St. |
| Dingwall Ave. | " | " Pape Ave. |
| Duggan Ave. | North | " Lawton Rd. |
| Dupont St. | " | " Manning Ave. |
| Durie St., W. Tor. | West | South line of Annette St. |
| Eaton Ave. | " | North line of Danforth Ave. |
| Ellesworth Ave. | North | West line of Vaughan Rd. |
| Emerson Ave. | West | South line of Lappin Ave. |
| Exhibition Grounds | | West side of Dufferin St., opposite north-east corner of Transportation Building. |
| Fairview Ave. | South | East line of Broadview Ave. |
| " | " | West line of Bowden St. |
| " W.T. | West | North line of Woodside Ave. |
| Ferrier Ave. | " | " Danforth Ave. |
| Follis Ave. | North | East line of Manning Ave. |
| Frederica St. | West | North line of St. Clair Ave. |
| Galley Ave. | South | East line of Macdonnell Ave. |
| " | " | " Sunnyside Ave. |
| Galt Ave. | West | North line of Dagmar Ave. |
| Garden Ave. | North | East line of Sunnyside Ave. |
| Geoffrey Ave. | " | " " |
| Glen Ave. | " | East line of Yonge St. |
| Glendale Ave. | West | South line of Wright Ave. |
| Glenham Ave. | North | West line of Christie St. |

SCHEDULE No. 12—*Continued*

TOTAL LIST OF ALL VALVES PLACED IN POSITION DURING THE YEAR 1909, SHOWING THE SIZE, LOCATION, ETC.

| Street, Avenue, etc. | Side of Street. | Location. |
|---|---|---|
| Globe Ave. | North | East line of Pape Ave. |
| Gormally Ave. | " | West line of Lawton Rd. |
| Hampton Ave. | West | North line of Hogarth Ave. |
| Harbord St. | North | East line of Givens St. |
| Hazelton Ave. | East | South line of Davenport Rd. |
| Hazelwood Ave. | North | West line of Jones Ave. |
| Heath St. | " | 185 feet east of Oriole Rd. |
| " | " | West line of Lawton Rd. |
| Helena Ave. | " | " Vaughan Rd. |
| Hendrick St. | West | South line of St. Clair Ave. |
| High Park Blvd. | North | East line of Sunnyside Ave. |
| Hogarth Ave. | South | " Logan Ave. |
| " | " | " Bowden St. |
| " | North | 136 feet east of Broadview Ave., P.V. |
| Howard Park Ave. | South | East line of Indian Rd. |
| Howland Ave. | West | South line of Davenport Rd. |
| Humberside Ave., West Toronto. | North | West line of Keele St. |
| Humewood Ave. | West | North line of St. Clair Ave. |
| Huntley St. | West | South line of South Drive. |
| Jerome Ave. | South | East line of Willoughby Ave. |
| John St. | West | South line of Queen St. |
| Kendall Ave | East | " Davenport Rd. |
| Kennedy Ave. | West | North line of St. Clair Ave. |
| Kenwood Ave. | " | " " |
| Kippendavie Ave | " | " Lake Front, Kew Beach |
| Laburnam Ave. | North | East line of Dowling Ave. |
| Lake Front, K.B. | " | " Woodbine Ave. |
| Lake Shore Rd. | " | On 6-in. main to Sunnyside Orphanage |
| Lansdowne Ave. | West | South line of Rideau Ave. |
| Lucas St. | North | East line of Roncesvalles Ave. |
| Macaulay Ave. | " | West line of Perth Ave. |
| Markham St. | West | North line of St. Clair Ave. |
| Marlboro' Cres. | East | South line of Heath St. |
| Marmaduke St. | North | West line of Sunnyside Ave. |
| " | " | East line of Indian Rd. |
| Montrose Ave. | East | North line of Harbord St. |
| " | " | South " " |
| Morley Ave. | West | North line of Queen St. |
| Newsham St. | North | East line of Brock Ave. |
| Nina St. | " | West line of Lyndhurst Ave. |
| Ontario St. | East | South line of Darling Ave. |
| " W.Tor. | West | " Annette St. |
| Osler Ave. | " | " C.P.R. Fence. |
| " | " | North line of " |
| Palmerston Grdns. | North | West line of Palmerston Ave. |
| " | " | East line of Manning Ave. |
| Parkwood Ave. | West | North line of St. Clair Ave. |
| Queen St. East. | South | Centre of McLean Ave. |
| " | " | East line of " |

SCHEDULE No. 12—*Continued.*

TOTAL LIST OF ALL VALVES PLACED IN POSITION DURING THE YEAR 1909, SHOWING THE SIZE, LOCATION, ETC.

| Street, Avenue, etc. | Side of Street. | Location. |
|---|---|---|
| Rosedale Rd..... | East ..... | North line of Avondale Rd. |
| Roxboro' St. E.... | North ..... | East line of Edgar Ave. |
| Russell Hill Rd. .. | West ..... | North line of St. Clair Ave. |
| " .. | " ..... | South line of " |
| Ruston Ave. ..... | " ..... | " " |
| Shaw St..... | " ..... | " " |
| Sherbourne St.... | East ..... | " South Drive. |
| Spadina Rd..... | West ..... | " St. Clair Ave. |
| " ..... | " ..... | " Davenport Rd. |
| Stephanie Pl..... | South ..... | West line of McCaul St. |
| Sunnyside Ave.... | West ..... | South line of Howard Pk. Ave. |
| " .... | " ..... | North line of College St. |
| " .... | " ..... | North line of High Park Blvd. |
| Sydney St..... | " ..... | South line of Cottingham St. |
| " ..... | " ..... | North line of Marlboro' Ave. |
| St. Clair Ave., W.T. | North ..... | East line of Weston Rd. |
| " | " ..... | West " |
| " | " ..... | In Creek, B.C. |
| St. Clarens Ave. .. | West ..... | South line of Lappin Ave. |
| Tyrrell Ave. ..... | North ..... | West line of Christie St. |
| " ..... | " .... | East " |
| Vaughan Rd..... | West ..... | North line of St. Clair Ave. |
| " ..... | " ..... | South " |
| Walmer Rd..... | East ..... | North line of Davenport Rd. |
| " ..... | South ..... | West line of Walmer Rd., north jog. |
| Walter St..... | North ..... | East line of Sunnyside Ave. |
| Waverley Rd. .... | East ..... | North line of Lake Front, K.B. |
| Westminster Ave.. | North ..... | West line of Roncesvalles Ave. |
| " .. | " ..... | East line of Sunnyside Ave. |
| " .. | " ..... | West " |
| Weston Rd., W.T. | East ..... | North line of Davenport Rd. |
| " | " ..... | South line of St. Clair Ave. |
| Woodlawn Av. Extn | " ..... | North line of Woodlawn Ave. |
| " | " ..... | South line of Farnham Ave. |
| Wright Ave..... | North ..... | East line of Sunnyside Ave. |
| " ..... | " ..... | West " |
| Wychwood Ave. .. | West ..... | North line of St. Clair Ave. |
| Yarmouth Grdns.. | North ..... | East line of Manning Ave. |
| " .. | " ..... | West line of Palmerston Ave. |
| Yonge St. ..... | East ..... | South of Heath St. Main. |
| " ..... | " ..... | North line of Heath St. |
| 4-IN. STOP VALVES: | | |
| Indian Grove .... | North ..... | Lane off Indian Grove, south of Ridout |
| Lake Front, E.T.. | South ..... | East line of Beach Ave. |
| Lowther Ave..... | " ..... | East line of Spadina Rd. |
| McLean Ave..... | East ..... | South line of Queen St. East |
| Ridout Ave. ..... | North ..... | West line of Indian Grove. |

SCHEDULE No. 12—*Continued.*

TOTAL LIST OF ALL VALVES PLACED IN POSITION DURING THE YEAR 1909, SHOWING THE SIZE, LOCATION, ETC.

| Street, Avenue, etc. | Side of Street. | Location. |
|---|---|---|
| St David's Pl..... | East ..... | North line of St. David's St. |
| Victor Ave..... | South ..... | East line of Logan Ave. |
| Virtue St. ..... | North ..... | East line of Sorauren Ave. |
| 12 IN. CHECK VALVES: | | |
| Queen St. East.... | North ..... | West line of Beach Ave. |
| 6 IN. CHECK VALVE: | | |
| Sydney St.... ... | West ..... | North line of Marlboro' Ave. |

VALVES TAKEN OUT OR ABANDONED DURING 1909.

| Street, Avenue, etc. | Side of Street. | Location. |
|---|---|---|
| 12-IN. STOP VALVES: | | |
| Lansdowne Ave. .. | West ..... | South line of Shirley Ave. |
| 6-IN. STOP VALVES: | | |
| Centre Ave..... | West ..... | South line of Chestnut Pl. |
| Chestnut St..... | " ..... | " " |
| Chestnut Pl..... | South ..... | East line of University Ave. |
| Jerome St..... | " ..... | 60 feet east of Willoughby Ave. |
| 4-IN. STOP VALVES: | | |
| Rideau Ave..... | North ..... | West line of Lansdowne Ave. |

SCHEDULE No. 12.—*Continued.*

SUMMARY OF VALVES ON STREETS AT END OF 1909.

| Size and Description. | In use at end of 1908. | Put in during 1909. | Taken out during 1909. | Total in use at end of 1909. |
|---|---|---|---|---|
| STOP VALVES: | | | | |
| 36 inch | 14 | ..... | ..... | 14 |
| 30 " | 7 | ..... | ..... | 7 |
| 24 " | 24 | ..... | ..... | 24 |
| 20 " | 38 | ..... | ..... | 38 |
| 16 " | 16 | 2 | .. .. | 18 |
| 12 " | 591 | 32 | 1 | 622 |
| 10 " | 6 | ..... | ..... | 6 |
| 9 " | 5 | ..... | ..... | 5 |
| 8 " | 19 | ..... | ..... | 19 |
| 6 " | 2,240 | 150 | 4 | 2,386 |
| 4 " | 101 | 8 | 1 | 108 |
| 3 " | 30 | ..... | ..... | 30 |
| Totals | 3,091 | 192 | 6 | 3,277 |
| CHECK VALVES: | | | | |
| 36 inch | 5 | ..... | ..... | 5 |
| 30 " | 4 | ..... | ..... | 4 |
| 24 " | 1 | ..... | ..... | 1 |
| 20 " | 1 | ..... | ..... | 1 |
| 12 " | 12 | 1 | ..... | 13 |
| 6 " | 50 | 1 | ..... | 51 |
| Totals | 73 | 2 | ..... | 75 |

EAST TORONTO.

APPROXIMATE DESCRIPTION AND LOCATION OF VALVES IN USE AT TIME OF ANNEXATION TO THE CITY.

| Street, Avenue, Etc. | Side of Street. | Location. |
|---|---|---|
| 12-INCH VALVES: | | |
| Beech Ave. | Centre | Opposite north line of Oak Walk. |
| Malvern St | East | North line of Kingston Rd. |
| Wayland St. | " | 41 feet south of Gerrard St. (suction). |
| 10-INCH VALVES: | | |
| Beech Ave. | Centre | Opposite north line of Queen St. |
| " | " | 10 feet north of south line of Oak Walk. |
| Pumping Station | | In Park. |
| Wayland Ave. | East | 40 feet south of Gerrard St. (discharge.) |

SCHEDULE No. 12—*Continued.* EAST TORONTO.

APPROXIMATE DESCRIPTION AND LOCATION OF VALVES IN USE AT TIME OF ANNEXATION TO THE CITY.

| Street, Avenue, etc. | Side of Street. | Location. |
|---|---|---|
| 6-INCH VALVES: | | |
| Balsam Ave. | West | South line of Queen St. |
| Beech Ave. | Centre | 50 feet north of Park (cross over). |
| " | West | Opposite south line of Queen St. (cross over). |
| " | " | Opposite north line of Oak Walk " |
| " | " | North line of Oak Walk. |
| " | " | Opposite north line of Pine St. (cross over). |
| " | Centre | South line of Balsam Ave. " |
| " | East | 165 feet south of Kingston Rd. (flush). |
| " | West | 48 feet south of Kingston Rd. |
| " | " | 183 " " (flush). |
| Danforth Ave. | North | 32 feet east of Dawes Rd. |
| " | " | East line of Main St. |
| Dawes Rd. | West | South line of Danforth Ave. |
| Gerrard St. | North | East line of Main St. |
| " | " | West " |
| Kimberley St. | West | North line of Gerrard St. |
| " | " | South " |
| Kingston Rd. | South | Opposite west line of Main St. |
| " | North | East line of Walter St. |
| Lyall Ave. | " | West line of Wayland Ave. |
| " | " | 44 feet east of Gerrard St. |
| Main St. | West | South line of " |
| " | " | 338 feet north of Bridge St. |
| " | " | In G.T.R. Yards west of Main St. |
| " | " | " " " |
| Malvern St. | " | North line of Lyall Ave. |
| Osborne Ave | " | " " |
| " | " | South line of Gerrard St. |
| Queen St. East | South | West line of Beech Ave. |
| " | " | East " |
| Wayland Ave. | West | North line of Lyall Ave. |
| " | " | South line of Gerrard St. |
| " | " | 63 feet south of Gerrard St. (cross over). |
| " | " | 95 feet south of Gerrard St. |
| 4-INCH VALVES: | | |
| Balfour Ave. | South | West line of Dawes Rd. |
| Balsam Ave. | West | 29 feet north of Queen St. East. |
| " | " | South line of Pine Ave. |
| " | North | West line of Beech Ave. |
| Barrington Ave. | West | North line of Danforth Ave. |
| Coleman Ave. | South | West line of Dawes Rd. |
| Dawes Rd. | West | 15 feet north of north line of Danforth Ave. |
| Fir Ave. | South | East line of Balsam Ave. |
| Hannaford St. | West | 16 feet north of north line of Kingston Rd. |
| " | " | South line of Lyall Ave. |
| " | " | North " |
| " | " | North side of Gerrard St. East. |

SCHEDULE No. 12—*Continued.* EAST TORONTO.

APPROXIMATE DESCRIPTION AND LOCATION OF VALVES IN USE AT TIME OF ANNEXATION TO THE CITY.

| Street, Avenue, etc. | Side of Street. | Location. |
|---|---|---|
| Kelvin Ave. | West | South line of Danforth Ave. |
| Luttrell Ave. | " | " " |
| Lyonde Cres. | South | East line of Balsam Ave. |
| Main St. | West | North line of Danforth Ave. |
| Malvern St. | " | South line of Lyall Ave. |
| Oaklands Ave. | " | 18 feet north of north line of Danforth Ave. |
| Pickering St. | " | South line of Lyall Ave. |
| " | " | North " |
| " | " | North side of Gerrard St. East. |
| Pine Ave. | South | West line of Beech Ave. |
| " | " | East line of Balsam Ave. (closed). |
| Spruce Ave. | West | North line of Queen St. East. |
| " | " | 10 feet south of Pine Ave. (closed). |
| Walter St. | " | 19 feet south of Lyall Ave. |

WEST TORONTO.

APPROXIMATE DESCRIPTION AND LOCATION OF VALVES IN USE AT TIME OF ANNEXATION TO THE CITY.

| Street, Avenue, etc. | Side of Street. | Location. |
|---|---|---|
| 12-IN. VALVES: | | |
| Annette St. | North | East line of Laws St. |
| " | " | " " High Park Ave. |
| " | " | " " Elizabeth St. |
| Elizabeth St. | West | North line of Annette St. |
| Keele St. | " | South line of Dundas St. |
| " | " | North line of " " |
| St. Clair Ave. | North | West line of Keele St. |
| 10-INCH VALVES: | | |
| Dundas St. | North | West line of Keele St. |
| " | " | " " High Park Ave. |
| " | " | East line of Frederick St. |
| " | " | " " Pacific Ave. |
| High Park Ave. | West | North line of Annette St. |
| 8-INCH VALVES: | | |
| Albany Rd. | West | North line of St. Clair Ave. |
| 6-INCH VALVES: | | |
| Annette St. | North | West line of Western Ave. |
| Albany Rd. | West | South line of St. Clair Ave. |

SCHEDULE No. 12—*Continued.* WEST TORONTO.

APPROXIMATE DESCRIPTION AND LOCATION OF VALVES IN USE AT THE TIME OF ANNEXATION TO THE CITY.

| Street, Avenue, etc. | Side of Street. | Location. |
|---|---|---|
| Argyle Rd..... | South ..... | South-west corner of West Toronto St. and Argyle Rd. |
| " ..... | West ..... | South line of St. Clair Ave. |
| Beatrice St..... | North ..... | West line of Pacific Ave. |
| " ..... | " ..... | " " High Park Ave. |
| " ..... | " ..... | East line of " " " |
| Brighton Pl..... | " .... | West line of Willoughby " |
| Campbell Ave..... | East ..... | South line of Davenport Rd. |
| " ..... | West ..... | North line of St. Clair Ave. |
| Cawthra Ave..... | " ..... | " " Junction Rd. |
| Central Ave..... | North ..... | West line of Willoughby Ave. |
| Charles St..... | East ..... | South line of Davenport Rd. |
| Churchill Ave..... | " ..... | North line of Kingsley Ave. |
| " ..... | " ..... | South line of Davenport Rd. |
| Clara St..... | South ..... | West line of Quebec Ave. |
| Clendenan Ave.... | " ..... | South line of Louisa St. |
| " ... | " ..... | North line of Annette St. |
| " .... | " ..... | South line of " " |
| " .... | " ..... | About 200 ft. south of Rowland St. |
| Conduit St. ..... | North ..... | " " Willoughby Ave. |
| Cooper Ave. ..... | East ..... | South line of Davenport Rd. |
| Davenport Rd..... | North ..... | East line of Weston Rd. |
| Dundas St..... | " ..... | West line of " " |
| " ..... | " ..... | Centre of Weston Rd. |
| " ..... | " ..... | Between Bruce and Western Ave. |
| " ..... | " ..... | East line of Keele St. |
| Evelyn Crest..... | " ..... | West line of Lakeview Ave. |
| Edmund St. ..... | East .... . | South line of Davenport Rd. |
| Fairview Ave..... | West ..... | " " Louisa St. |
| " ..... | " ..... | North line of Annette St. |
| " ..... | " ..... | South line of " " |
| Fiskin Ave..... | " ..... | North line of Louisa St. |
| Frederick St..... | " ..... | " " Dundas St. |
| Franklin Ave. .... | North ..... | West line of Argyle Rd. |
| Gilmore Ave..... | West ..... | South line of Louisa St. |
| " ..... | " ..... | North line of Annette St. |
| Grove Ave ..... | Centre.. .... | East line of Mulock Ave. |
| High Park Ave.... | West. .... .. | South line of Annette St. |
| Hook Ave. ..... | North ..... | West line of Weston Rd. |
| Hoskin Ave..... | West..... | North line of Dundas St. |
| Humberside Ave.. | North ..... | East line of Western Ave. |
| " .. | " ..... | West line of Willoughby Ave. |
| Keele St..... | West..... | North line of West Toronto St. |
| " ..... | " ..... | " St. Clair Ave. |
| " ..... | " ..... | South line of Annette St. (Northern Inter.) |
| " ..... | " ..... | " " (Southern Inter.) |
| King St... . .... | East..... | North line of Davenport Rd. |
| " ..... | " ..... | South line of St. Clair Ave. |
| Lakeview Ave.... | West..... | " Louisa St. |

SCHEDULE No. 12—*Continued.* WEST TORONTO.

Approximate Description and Location of Valves in Use at the Time of Annexation to the City.

| Street or Avenue, etc. | Side of Street. | Location. |
|---|---|---|
| Lakeview Ave. | West | North line of Annette St. |
| " | " | South " |
| Laughton Ave. | East | North line of Pelham Ave. |
| " | " | South line of Davenport Rd. |
| Laws St | West | " Louisa St. |
| " | East | North line of Annette St. |
| Linder St. | North | West line of Charles St. |
| Louisa St. | " | " Dundas St. |
| McCormack St. | " | East line of Weston Rd. |
| McMurray Ave. | West | North line of Dundas St. |
| Maria St. | North | West line of Frederick St. |
| " | " | East " " |
| May St. | West | South line of Dundas St. |
| " | " | North line of Annette St. |
| " | " | South line of Annette St. |
| Medland St. | " | " Dundas St. |
| " | " | North line of Annette St. |
| " | " | South " |
| Mulock Ave. | East | North line of Junction Rd. |
| Pacific Ave. | West | North line of Dundas St. |
| " | " | " Annette St. |
| " | " | South line of " |
| " | " | 115 feet north of Uttley St. |
| " | " | South line of Dundas St. |
| Pelham Ave. | North | West line of Laughton Ave. |
| " | " | East line of Edmund St. |
| Quebec Ave. | West | South line of Dundas St. |
| " | " | North line of Annette St. |
| " | " | South " |
| " | " | North line of Beatrice St. |
| Queen St. | East | " Davenport Rd. |
| " | " | South line of St. Clair Ave. |
| St. Clair Ave. | North | East line of Keele St. |
| " | " | 300 feet west of Keele St. |
| " | " | Opposite entrance to Union Stock Yards. |
| " | " | " " " |
| Union St. | West | North line of Dundas St. |
| " | " | South " |
| Uttley St. | North | East line of Pacific Ave. |
| Uxbridge Ave. | East | North line of Pelham Ave. |
| " | " | South line of Davenport Rd. |
| Van Horne St. | West | North line of Dundas St. |
| Victoria St. | " | " " |
| Vine Ave. | North | West line of Keele St. |
| " | " | West line Pacific Ave. |
| Western Ave. | West | South line of Dundas St. |
| " | " | " Annette St. |
| " | " | " Brighton Pl. |
| Weston Rd. | " | Opposite south leg of Mill Rd. |
| " | East | South line of Junction Rd. |

SCHEDULE No. 12—*Continued.* WEST TORONTO.

APPROXIMATE DESCRIPTION AND LOCATION OF VALVES IN USE AT THE TIME OF ANNEXATION TO THE CITY.

| Street, Avenue, etc. | Side of Street. | Location. |
|---|---|---|
| Weston Rd. | East | North line of St. Clair Ave. |
| Whitney Ave. | " | South line of " " |
| Willoughby Ave. | West | " " Dundas St. |
| " " | " | " " Annette St. |
| " " | " | North line of Brighton Pl. |
| Wilson Pl. | North | West line of Union St. |
| Woodside Ave. | " | " " Lakeview Ave. |
| 4-INCH VALVES : | | |
| Annette St. | South | West line of Elizabeth St. |
| Humberside Ave. | North | East line of Willoughby Ave. |
| Lytton Ave. | South | " " Campbell Ave. |
| Rowland St. | North | West line of Clendenan Ave. |
| Weston Rd. S. | West | North line of McCormack St. |

## SCHEDULE No. 13.

STATEMENT OF HOUSE SERVICES IN USE TO DECEMBER 31ST, 1909.

| | | | | | |
|---|---|---|---|---|---|
| Total number of services in use previous to 1874 | | | | | 1,375 |
| " " | laid during 1874 | | | | 552 |
| Number of new " | " | 1875 | | | 842 |
| " renewed services laid during 1875 | | | | | 24 |
| " new " | " | 1876 by permit | | | 141 |
| " renewed " | " | 1876 | | | 12 |
| " new " | laid by Commission in 1876 | | | | 602 |
| " renewed " | " | " | 1876 | | 258 |
| " new " | " | " | 1877 | | 1,006 |
| " renewed " | " | " | 1877 | | 161 |
| " new " | " | Corporation | 1878 | | 2,189 |
| " renewed " | " | " | 1878 | | 103 |
| " new " | " | " | 1879 | | 1,861 |
| " renewed " | " | " | 1879 | | 97 |
| " new " | " | " | 1880 | | 1,014 |
| " renewed " | " | " | 1880 | | 41 |
| " new " | " | " | 1881 | | 2,654 |
| " renewed " | " | " | 1881 | | 117 |
| " new " | " | " | 1882 | | 1,826 |
| " renewed " | " | " | 1882 | | 44 |
| " new " | " | " | 1883 | | 1,766 |
| " renewed " | " | " | 1883 | | 54 |
| " new " | " | " | 1884 | | 2,087 |
| " renewed " | " | " | 1884 | | 12 |
| " new " | " | " | 1885 | | 2,344 |
| " renewed " | " | " | 1885 | | 22 |
| " new " | " | " | 1886 | | 2,936 |
| " renewed " | " | " | 1886 | | 19 |
| " new " | " | " | 1887 | | 3,250 |
| " renewed " | " | " | 1887 | | 65 |
| " new " | " | " | 1888 | | 2,990 |
| " renewed " | " | " | 1888 | | 65 |
| " new " | " | " | 1889 | | 3,288 |
| " renewed " | " | " | 1889 | | 68 |
| " new " | " | " | 1890 | | 2,136 |
| " renewed " | " | " | 1890 | | 55 |
| " new " | " | " | 1891 | | 2,058 |
| " renewed " | " | " | 1891 | | 53 |
| " new " | " | " | 1892 | | 1,151 |
| " renewed " | " | " | 1892 | | 49 |
| " new " | " | " | 1893 | | 526 |
| " renewed " | " | " | 1893 | | 2 |
| " new " | " | " | 1894 | | 390 |

SCHEDULE No. 13—*Continued.*

| | | | | | | |
|---|---|---|---|---|---|---|
| Number of | renewed | services | laid | by | Corporation | 1894 ..... 11 |
| " | new | " | " | " | " | 1895 ..... 319 |
| " | renewed | " | " | " | " | 1895 ..... 38 |
| " | new | " | " | " | " | 1896 ..... 291 |
| " | renewed | " | " | " | " | 1896 ..... 45 |
| " | new | " | " | " | " | 1897 ..... 474 |
| " | renewed | " | " | " | " | 1897 ..... 29 |
| " | new | " | " | " | " | 1898 ..... 504 |
| " | renewed | " | " | " | " | 1898 ..... 32 |
| " | new | " | " | " | " | 1899 ..... 664 |
| " | renewed | " | " | " | " | 1899 ..... 35 |
| " | new | " | " | " | " | 1900 ..... 683 |
| " | renewed | " | " | " | " | 1900 ..... 26 |
| " | new | " | " | " | " | 1901 ..... 1,133 |
| " | renewed | " | " | " | " | 1901 ..... 8 |
| " | new | " | " | " | " | 1902 ..... 1,319 |
| " | renewed | " | " | " | " | 1902 ..... 13 |
| " | new | " | " | " | " | 1903 ..... 1,402 |
| " | renewed | " | " | " | " | 1903 ..... 45 |
| " | new | " | " | " | " | 1904 ..... 2,036 |
| " | renewed | " | " | " | " | 1904 ..... 48 |
| " | new | " | " | " | " | 1905 ..... 3,185 |
| " | renewed | " | " | " | " | 1905 ..... 20 |
| " | new | " | " | " | " | 1906 ..... 4,041 |
| " | renewed | " | " | " | " | 1906 ..... 31 |
| " | new | " | " | " | " | 1907 ..... 3,961 |
| " | renewed | " | " | " | " | 1907 ..... 8 |
| " | new | " | " | " | " | 1908 ..... 3,672 |
| " | renewed | " | " | " | " | 1908 ..... 3 |
| " | new | " | " | " | " | 1909 ..... 5,147 |
| " | renewed | " | " | " | " | 1909 ..... 8 |
| " | services in Yorkville at time of annexation ..... 448 | | | | | |
| " | " in Parkdale " " ..... 885 | | | | | |
| Total number of services laid on Island ..... 397 | | | | | | |

SCHEDULE No. 14 – Number and Size of Services in Use to December 31st, 1909.

| | ½-in. | ⅝-in. | ¾ in. | ⅞-in. | ¾-in. | 1-in. | 1½-in. | 2-in. | 2½-in. | 3-in. | 4-in. | 6-in. | 8-in. | Total. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Services laid previous to 1875 | | | | | | | | | | | | | | 1,927 |
| New services laid in 1875 | | | 617 | 194 | 38 | 7 | 4 | 5 | | 1 | | | | 866 |
| " " 1876 | | | 900 | 80 | 11 | 8 | 1 | 4 | 1 | 8 | | | | 1,013 |
| " " 1877 | | | 1,083 | 43 | 9 | 8 | | 10 | | 14 | | | | 1,167 |
| " " 1878 | 86 | 1,427 | 717 | 28 | 5 | 9 | | 5 | | 14 | 1 | | | 2,292 |
| " " 1879 | | 1,248 | 633 | 47 | 9 | 5 | | 4 | | 12 | | | | 1,958 |
| " " 1880 | | 607 | 385 | 26 | 7 | 3 | | 8 | | 19 | | | | 1,055 |
| " " 1881 | | 1,375 | 1,275 | 62 | 17 | 17 | | 7 | | 17 | 1 | | | 2,771 |
| " " 1882 | | 625 | 1,139 | 44 | 23 | 20 | | 5 | | 14 | | | | 1,870 |
| " " 1883 | | 373 | 1,311 | 70 | 16 | 13 | | 17 | | 17 | 3 | | | 1,820 |
| " " 1884 | | 441 | 1,519 | 70 | 13 | 25 | | 9 | | 20 | 2 | | | 2,099 |
| " " 1885 | | 190 | 2,068 | 56 | 26 | 13 | | 7 | | 5 | | 1 | | 2,366 |
| " " 1886 | | 14 | 2,741 | 92 | 37 | 29 | | 9 | | 25 | | 8 | | 2,955 |
| " " 1887 | | 10 | 3,062 | 106 | 55 | 38 | | 15 | | 25 | | 4 | | 3,315 |
| " " 1888 | | | 2,856 | 101 | 32 | 22 | | 19 | | 14 | 7 | 4 | | 3,055 |
| " " 1889 | | | 3,087 | 127 | 52 | 45 | | 19 | | 1 | 24 | 1 | | 3,356 |
| " " 1890 | | | 1,995 | 83 | 37 | 35 | | 16 | | | 24 | 1 | | 2,191 |
| " " 1891 | | | 1,995 | 33 | 34 | 24 | | 11 | | | 13 | 1 | | 2,111 |
| " " 1892 | | | 1,109 | 26 | 23 | 23 | | 7 | | | 12 | | | 1,200 |
| " " 1893 | | | 465 | 18 | 13 | 15 | | 8 | | | 8 | 1 | | 528 |
| " " 1894 | | | 332 | 29 | 15 | 17 | | 3 | | | 4 | 1 | | 401 |
| " " 1895 | | | 270 | 26 | 25 | 17 | | 11 | | | 7 | 1 | | 357 |
| " " 1896 | | | 359 | 20 | 22 | 20 | | 13 | | | 1 | 1 | | 336 |
| " " 1897 | | | 390 | 34 | 17 | 36 | | 16 | | | 5 | 5 | | 503 |
| " " 1898 | | | 378 | 60 | 45 | 27 | | 12 | | 1 | 6 | 7 | | 536 |
| " " 1899 | | | 430 | 123 | 70 | 23 | | 26 | | 1 | 5 | 11 | | 699 |
| " " 1900 | | | 421 | 137 | 43 | 53 | | 17 | | | 6 | 5 | | 682 |
| " " 1901 | | | 654 | 202 | 92 | 40 | | 24 | | | 16 | 5 | | 1,033 |
| " " 1902 | | | 1,019 | 128 | 74 | 45 | | 36 | | | 15 | 10 | | 1,332 |
| " " 1903 | | | 1,101 | 113 | 83 | 41 | | 37 | | 7 | 12 | 7 | 1 | 1,402 |
| " " 1904 | | | 1,560 | 231 | 80 | 48 | | 50 | | 12 | 37 | 15 | 3 | 2,036 |
| " " 1905 | | | 1,722 | 354 | 138 | 58 | | 29 | | 7 | 20 | 28 | 1 | 3,185 |
| " " 1906 | | | 2,710 | 899 | 213 | 95 | | 81 | | 9 | 19 | 15 | | 4,041 |
| " " 1907 | | | 2,722 | 762 | 233 | 96 | | 71 | | 14 | 17 | 43 | 3 | 3,961 |
| " " 1908 | | | 2,353 | 890 | 313 | 85 | | 81 | | 18 | 14 | 14 | 1 | 3,772 |
| " " 1909 | | | 3,769 | 798 | 294 | 121 | | 108 | | 18 | 18 | 19 | 2 | 5,147 |
| Totals | 86 | 6,310 | 49,139 | 6,112 | 1,611 | 1,171 | 5 | 803 | 1 | 293 | 307 | 198 | 11 | 69,338 |

| | |
|---|---|
| Total number of services on Island | 397 |
| Laid by Yorkville previous to annexation | 448 |
| " Parkdale " " | 885 |
| Total number of services | 71,068 |

## SCHEDULE No. 15.

### Meters Rebuilt in Shop.

| Meter. | ⅝-inch. | ¾-inch. | 1-inch. | 1½-inch. | 2-inch. | 3-inch. | 4-inch. | 6-inch. | |
|---|---|---|---|---|---|---|---|---|---|
| Crown | 95 | 21 | 16 | .... | 11 | 9 | 8 | 1 | 161 |
| Nash | 11 | 3 | 4 | .... | .... | .... | .... | .... | 18 |
| Trident | 21 | 18 | 7 | .... | .... | .... | .... | .... | 46 |
| Hersey | 13 | 3 | 2 | .... | 1 | .... | .... | .... | 19 |
| Lambert | 7 | 10 | 5 | .... | .... | .... | .... | .... | 22 |
| Keystone | 13 | 25 | 7 | 2 | .... | .... | .... | .... | 47 |
| Gem | .. | .... | .... | .... | 12 | .... | .... | 1 | 13 |
| Sieman | 2 | 4 | 6 | .... | 5 | .... | .... | .... | 17 |
| Worth | 3 | 5 | 16 | 1 | 20 | 1 | .... | .... | 46 |
| Kennedy | .... | .... | .... | .... | .... | 4 | 4 | 10 | 18 |
| Crest | .... | .... | .... | .... | 1 | .... | .... | .... | 1 |
| Empire | 3 | 3 | .... | 3 | 1 | .... | .... | .... | 10 |
| Buffalo | .... | .... | 2 | .... | .... | .... | .... | .... | 2 |
| Bat | .... | 1 | .... | .... | .... | .... | .... | .... | 1 |
| Total | 168 | 93 | 65 | 6 | 51 | 14 | 12 | 12 | 421 |

## SCHEDULE No. 16.

METERS IN USE UP TILL DEC. 31ST, 1909.

| Meter. | ⅝-inch. | ¾-inch. | 1-inch. | 1½-inch. | 2-inch. | 3-inch. | 4-inch. | 5-inch. | 6-inch. | 8-inch. | 10-inch. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Crown | 556 | 259 | 131 | .... | 162 | 70 | 70 | .... | 10 | .... | .... | 1,258 |
| Nash | 47 | 30 | 37 | .... | 2 | .... | .... | .... | .... | .... | .... | 116 |
| Trident | 95 | 81 | 66 | .... | .... | .... | .... | .... | .... | .... | .... | 242 |
| Hersey | 64 | 31 | 29 | .... | 1 | .... | .... | .... | .... | .... | .... | 125 |
| Lambert | 23 | 18 | 23 | .... | .... | .... | .... | .... | .... | .... | .... | 64 |
| Keystone | 65 | 57 | 36 | 1 | 2 | .... | 1 (Eureka) | | .... | .... | | 162 |
| Gem | .... | .... | .... | .... | 85 | 20 | 12 | .... | 3 | .... | 1 | 121 |
| Worth | 54 | 77 | 151 | 42 | 154 | 35 | 3 | .... | .... | .... | .... | 516 |
| Crest | .... | .... | .... | .... | .... | 13 | 10 | .. | .... | .. | .... | 23 |
| Empire | 6 | .... | 4 | 1 | 1 | .... | .... | .... | .... | .... | | 12 |
| Sieman | 48 | 63 | 40 | .. | 49 | 26 | 17 | 12 | 8 | 4 | 1 | 268 |
| Kennedy | .... | .... | .... | .... | 4 | 10 | 6 | .... | 17 | .... | .... | 37 |
| Union | .... | .... | .... | .... | 25 | .... | .... | .... | .... | .... | .. | 25 |
| Buffalo | .... | .... | 2 | .... | .... | .... | .... | .... | .... | .... | .. | 2 |
| King | 2 | .... | 2 | .... | .... | .... | .... | .... | .... | .... | .... | 4 |
| Columbia | 2 | .... | .... | .... | .... | .. | .... | .... | .... | .... | .... | 2 |
| Bat | .... | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | 1 |
| Total | 962 | 617 | 521 | 44 | 485 | 174 | 119 | 12 | 38 | 4 | 2 | 2,978 |

## SCHEDULE No. 17.

### Meters Inspected and Repaired without Removal.

| Meter. | ⅝-inch. | ¾-inch. | 1-inch. | 1½-inch. | 2-inch. | 3-inch. | 4-inch. | 5-inch. | 6-inch. | 10-inch. | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Crown | 149 | 105 | 48 | .... | 68 | 39 | 32 | .... | 10 | .... | 451 |
| Nash | 16 | 15 | 19 | .. | .... | .... | .... | .... | .... | .... | 50 |
| Trident | 46 | 32 | 24 | .... | .... | .... | .... | .... | .... | .... | 102 |
| Hersey | 22 | 14 | 14 | .... | 1 | .... | .... | .... | .... | .... | 51 |
| Lambert | 12 | 12 | 14 | .... | .... | .... | .... | .... | .... | .... | 38 |
| Keystone | 29 | 21 | 22 | 5 | .... | .... | .... | .... | .... | .... | 77 |
| Sieman | 9 | 19 | 22 | 2 | 16 | 8 | 10 | 2 | 7 | .... | 95 |
| Worth | 16 | 54 | 130 | 29 | 149 | 45 | 7 | .... | .... | .... | 430 |
| Empire | 4 | .... | .... | 1 | 1 | .... | .... | .... | .... | .... | 6 |
| King | .... | 1 | 2 | .... | .... | .... | .... | .... | .... | .... | 3 |
| Union | .... | .... | .... | .... | 18 | .. | .... | .... | .... | .... | 18 |
| Gem | .... | .... | .... | .... | 63 | 6 | 1 | .... | 4 | 1 | 75 |
| Kennedy | .... | .... | .... | .... | 2 | 14 | 13 | .... | 41 | .... | 70 |
| Crest | .... | .... | .... | .... | .... | 11 | 7 | .... | .... | .... | 18 |
| Total | 303 | 273 | 295 | 37 | 318 | 123 | 70 | 2 | 62 | 1 | 1,484 |

## SCHEDULE No. 17 (a).

### Meters Taken off for Repairs and Replaced.

| Meters. | ⅝ inch. | ¾ inch. | 1 inch. | 1½ inch. | 2 inch. | 3 inch. | 4 inch. | 5 inch. | 6 inch. | 10 inch. | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Crown | 83 | 42 | 19 | .... | 11 | 5 | 9 | .... | .... | .... | 169 |
| Nash | 9 | 5 | 7 | .... | .... | .... | .... | .... | .... | .... | 21 |
| Trident | 18 | 15 | 8 | .... | .... | .... | .... | .... | .... | .... | 41 |
| Hersey | 9 | 4 | 6 | .... | 2 | .... | .... | .... | .... | .... | 21 |
| Lambert | 3 | 3 | 3 | .. | .... | .... | .... | .... | .... | .... | 9 |
| Keystone | 12 | 11 | 7 | 2 | .... | .... | .... | .... | .... | .... | 32 |
| Gem | .... | .. | .... | .... | 7 | .... | .... | ... | .... | ... | 7 |
| Sieman | 6 | 5 | 11 | .... | 2 | 1 | .... | 1 | 2 | .... | 28 |
| Worth | 10 | 10 | 16 | .... | 10 | 2 | .... | .... | .... | .... | 48 |
| Kennedy | .... | .... | .... | .... | .... | 2 | 1 | .... | 8 | .... | 11 |
| Crest | .... | .... | ... | .... | .... | 1 | .... | .... | .... | .... | 1 |
| Union | .... | .... | .... | ... | 2 | .... | .... | .... | .... | .... | 2 |
| Columbia | 1 | .... | .... | .... | .... | .... | .... | .... | .. | ... | 1 |
| Empire | 1 | .... | .... | .... | .... | .... | .... | .... | .... | .... | 1 |
| Buffalo | .... | .... | 2 | 1 | .. | .... | .... | .... | .... | .... | 3 |
| Total | 152 | 95 | 79 | 3 | 34 | 11 | 10 | 1 | 10 | .... | 395 |

## SCHEDULE No. 18.

NEW METER TAKERS, INCLUDING METERS IN EAST AND WEST TORONTO JUNCTION.

| Meter. | ⅝-inch. | ¾ inch. | 1-inch. | 1½-inch. | 2-inch. | 3-inch. | 4-inch. | 6-inch. | |
|---|---|---|---|---|---|---|---|---|---|
| Crown | 22 | 17 | 10 | .. | 52 | 2 | 6 | .... | 109 |
| Nash | 7 | 2 | .... | .... | .... | .... | .... | .... | 9 |
| Trident | 16 | 13 | 11 | .... | .... | .... | .... | .... | 40 |
| Hersey | 14 | 7 | 6 | .... | .... | .... | .... | .... | 27 |
| Lambert | 5 | 10 | 12 | .... | .... | .... | .... | .... | 27 |
| Keystone | 12 | 15 | 6 | 1 | 1 | .... | .... | .... | 35 |
| Gem | .... | .... | .... | .... | 13 | 5 | 1 | .... | 19 |
| Worth | 9 | 10 | 9 | 8 | 11 | .... | .... | .... | 47 |
| Empire | 1 | .... | 1 | .. | 1 | .. | .... | .... | 3 |
| Sieman | 1 | 1 | .... | .... | 2 | 2 | .... | .... | 6 |
| Buffalo | .... | .... | 1 | .... | .... | .... | .... | .. | 1 |
| King | 1 | .... | 2 | .... | .... | .... | .... | .... | 3 |
| Bat | .... | 1 | .... | .... | .... | .... | .... | .... | 1 |
| Kennedy | .... | .... | .... | .... | .... | .... | .... | 1 | 1 |
| Total | 88 | 76 | 58 | 9 | 80 | 9 | 7 | 1 | 328 |

## SCHEDULE No. 18 (a).

### Meters Ordered Off.

| Meters. | ⅝ inch. | ¾ inch. | 1 inch. | 1½ inch. | 2 inch. | 3 inch. | 4 inch. | 6 inch. | |
|---|---|---|---|---|---|---|---|---|---|
| Crown | 24 | 13 | 3 | .... | 3 | 3 | 2 | 1 | 49 |
| Nash | 3 | 1 | 1 | .... | .... | .... | .... | .... | 5 |
| Trident | 7 | 6 | .... | .... | .... | .... | .... | .... | 13 |
| Hersey | 5 | 1 | .... | .... | .... | .... | .... | .... | 6 |
| Lambert | 2 | 6 | 1 | .... | .... | .... | .... | .... | 9 |
| Keystone | 2 | 7 | 1 | .... | .... | .... | .... | .... | 10 |
| Gem | .... | .... | .... | .... | 11 | .... | .... | 1 | 12 |
| Sieman | 1 | 2 | .... | .... | 1 | .... | 1 | .... | 5 |
| Worth | 2 | 2 | 1 | 1 | 3 | .... | .... | .... | 9 |
| Total | 46 | 38 | 7 | 1 | 18 | 3 | 3 | 2 | 118 |

## SCHEDULE No. 19.

RETURN OF TEMPERATURE OF WATER FOR YEAR 1909, TAKEN AT THE SHORE CRIB AND THE CITY HALL TAP.

| Month. | Degrees Fahrenheit. | | | | | |
|---|---|---|---|---|---|---|
| | Shore Crib. | | | City Hall Tap. | | |
| | Highest. | Lowest. | Average. | Highest. | Lowest. | Average. |
| January | 39 | 33 | 35.98 | 42 | 36 | 35.35 |
| February | 36 | 33 | 34.98 | 39 | 36 | 37.50 |
| March | 36 | 34 | 34.54 | 39 | 36 | 37.22 |
| April | 40 | 35 | 37.53 | 43 | 38 | 40.62 |
| May | 46 | 37 | 40.58 | 46 | 41 | 43.32 |
| June | 50 | 40 | 44.40 | 54 | 44 | 48.41 |
| July | 49 | 41 | 43.51 | 52 | 44 | 46.38 |
| August | 70 | 45 | 57.80 | 69 | 48 | 59.38 |
| September | 63 | 40 | 54.13 | 64 | 46 | 56.68 |
| October | 51 | 41 | 43 19 | 52 | 44 | 46.52 |
| November | 46 | 39 | 42.28 | 49 | 43 | 45.19 |
| December | 41 | 35 | 36.77 | 45 | 38 | 40.42 |
| Averages for Year | 47.2 | 37.45 | 42.13 | 49.5 | 41.16 | 44.75 |

### ANALYSIS OF TEMPERATURE.

*Shore Crib.*

The highest on August 15th, 70 deg.; the lowest on January 17th and February 20th, 33 deg.; the lowest average in March 34.54 deg.

*City Hall Tap.*

The highest on August 17th and 18th, 69 deg.; the lowest on January 19th, February 11th and 23rd, and March 2nd to 5th, 36 deg.; the lowest average in January, 35.35 deg.

## SCHEDULE No. 20.

### Leaks on Mains Repaired During the Year 1909.

The following leaks on mains were repaired during the year :

| | |
|---|---|
| 36-inch | 13 |
| 30-inch | |
| 24-inch | 8 |
| 20-inch | 3 |
| 16-inch | 2 |
| 12-inch | 98 |
| 10-inch | 1 |
| 8-inch | 3 |
| 6-inch | 104 |
| 4-inch | 1 |
| 3-inch | 1 |
| Total | 234 of all sizes. |

The cost of repairing these leaks (exclusive of asphalt pavement repairs), was :—

| | |
|---|---|
| Labor | $2,163 11 |
| Material | 170 91 |
| Total | $2,334 02 |

| | |
|---|---|
| Average number of leaks per mile of distribution | 0.686 |
| Average cost per mile | $6 84 |
| Average cost per leak (labor included) | 9 97 |

STATEMENT OF QUANTITY OF AND SINKING FUND.

| Year. | Total Water Pumped Imp. Gallons. | Tot P | Total Cost, including Fuel, Wages, Maintenance, Interest and Sinking Fund | Total Cost per 1,000 Gals. on same. |
|---|---|---|---|---|
| | | | $ c. | Cents. |
| 1870 | 441,011,250 | | | |
| 1871 | 509,908,250 | | | |
| 1872 | 548,746,840 | | | |
| 1873 | 586,230,295 | | | |
| 1874 | 789,434,045 | | | |
| 1875 | 1,390,706,595 | 5,0 | | |
| 1876 | 1,625,138,876 | 6,9 | | |
| 1877 | 2,633,433,932 | 10,4 | | |
| 1878 | 1,417,370,918 | 8,1 | | |
| 1879 | 1,610,104,342 | 10,8 | | |
| 1880 | 1,785,859,706 | 11,0 | | |
| 1881 | 1,910,430,419 | 12,3 | | |
| 1882 | 2,108,933,115 | 11,0 | | |
| 1883 | 2,809,956,484 | 17,2 | | |
| 1884 | 3,645,442,082 | 19,9 | 268,336 27 | 7.36 |
| 1885 | 3,537,482,598 | 18,0 | 256,144 50 | 7.24 |
| 1886 | 4,134,376,998 | 19,2 | 271,293 24 | 6.80 |
| 1887 | 4,417,938,169 | 23,2 | 293,512 09 | 6.64 |
| 1888 | 4,041,964,514 | 20,4 | 306,828 69 | 7.59 |
| 1889 | 4,148,781,634 | 19,2 | 342,671 81 | 8.25 |
| 1890 | 5,249,760,226 | 24,6 | 394,906 84 | 7.52 |
| 1891 | 6,534,375,161 | 29,3 | 409,127 12 | 6.26 |
| 1892 | 6,659,925,650 | 34,5 | 402,841 79 | 6 04 |
| 1893 | 6,646,021,488 | 26,0 | 413,213 70 | 6.21 |
| 1894 | 6,589,492,142 | 26,8 | 408,707 23 | 6.20 |
| 1895 | 6,639,680,218 | 21,1 | 373,640 06 | 5.62 |
| 1896 | 6,781,187,980 | 18,6 | 370.754 80 | 5.46 |
| 1897 | 6,723,757,030 | 20,7 | 367,499 80 | 5.46 |
| 1898 | 7,136,334,102 | 22,1 | 368,754 54 | 5.16 |
| 1899 | 7,824,348,217 | 24,6 | 384,685 19 | 4.91 |
| 1900 | 8,064,384,595 | 24,1 | 392,573 11 | 4.86 |
| 1901 | 8,299,298,465 | 26,2 | 394,432 97 | 4.75 |
| 1902 | 7,993,916,325 | 23,7 | 398,098 73 | 4.98 |
| 1903 | 8,735,658,003 | 30,2 | 424,847 29 | 4.86 |
| 1904 | 9,076,711,575 | 32,8 | 470,314 63 | 5.18 |
| 1905 | 9,174,732,461 | 34,5 | 472,064 81 | 5.01 |
| 1906 | 9,859,486,415 | 27,6 | 478,318 74 | 4.75 |
| 1907 | 10,356,547,168 | 30,7 | 540,715 03 | 5.22 |
| 1908 | 10,669,056,355 | 31,7 | 558,531 97 | 5.23 |
| 1909 | 11,419,392,921 | 33,7 | 573,767 84 | 5.00 |

SCHEDULE No. 21.

STATEMENT OF QUANTITY OF WATER PUMPED, AND THE COST OF PUMPING, FIGURED ON COAL, WAGES, MAINTENANCE, AND INTEREST AND SINKING FUND.

MAIN PUMPING STATION.

| Year. | Total Water Pumped Imp. Gallons. | Total Fuel Pounds. | Cost of Fuel. | Wages. | Total Cost, including Repairs, Fuel, Wages, etc. Main Pump. Station. | Fuel. Cost per 1,000 Gals. | Fuel and Wages. Cost per 1,000 Gals. | Fuel, Wages and Mainten'ce Cost per 1,000 Gals. | Total Working Expenses, including Collection of Revenue, including repumping. | Interest and Sinking Fund. | Total Cost, including Fuel, Wages, Maintenance, Interest and Sinking Fund | Total Cost per 1,000 Gals. on same. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | $ c. | $ c. | $ c. | Cents. | Cents. | Cents. | $ c. | $ c. | $ c. | Cents. |
| 1870 | 441,011,250 | | | | | | | | | | | |
| 1871 | 509,908,250 | | | | | | | | | | | |
| 1872 | 548,746,840 | | | | | | | | | | | |
| 1873 | 586,230,295 | | | | | | | | | | | |
| 1874 | 789,434,045 | | | | | | | | | | | |
| 1875 | 1,390,706,595 | 5,003,262 | 17,156 47 | 5,838 95 | 25,886 05 | 1.23 | 1.65 | 1.86 | | | | |
| 1876 | 1,625,138,876 | 6,988,282 | 19,645 75 | 6,447 02 | 30,379 60 | 1.21 | 1.60 | 1.86 | | | | |
| 1877 | 2,633,438,932 | 10,407,992 | 25,556 29 | 7,866 70 | 36,895 23 | 0.97 | 1.26 | 1.40 | | | | |
| 1878 | 1,417,370,918 | 8,120,090 | 15,196 20 | 7,140 00 | 25,246 50 | 1.00 | 1.51 | 1.78 | | | | |
| 1879 | 1,610,104,342 | 10,872,211 | 19,313 07 | 7,140 00 | 29,827 38 | 1.19 | 1.63 | 1.85 | | | | |
| 1880 | 1,785,859,706 | 11,694,808 | 28,455 72 | 7,140 00 | 39,285 25 | 1.59 | 1.98 | 2.19 | | | | |
| 1881 | 1,910,480,419 | 12,391,874 | 31,410 04 | 7,473 75 | 42,529 22 | 1.64 | 2.03 | 2.22 | | | | |
| 1882 | 2,108,933,115 | 11,685,556 | 30,170 64 | 8,819 81 | 43,619 63 | 1.43 | 1.84 | 2.06 | | | | |
| 1883 | 2,809,956,484 | 17,266,679 | 43,529 08 | 10,025 72 | 59,809 65 | 1.54 | 1.89 | 2.12 | | | | |
| 1884 | 3,645,442,082 | 19,920,782 | 52,525 56 | 10,842 40 | 69,355 64 | 1.44 | 1.73 | 1.90 | 117,733 27 | 150,603 00 | 268,336 27 | 7.36 |
| 1885 | 3,537,482,598 | 18,644,465 | 46,589 27 | 12,017 85 | 65,082 39 | 1.31 | 1.64 | 1.84 | 104,530 50 | 151,614 00 | 256,144 50 | 7.24 |
| 1886 | 4,134,376,998 | 19,285,371 | 41,979 32 | 14,814 40 | 65,579 74 | 1.01 | 1.36 | 1.58 | 112,211 24 | 159,082 00 | 271,293 24 | 6.80 |
| 1887 | 4,417,938,169 | 23,283,900 | 50,051 85 | 16,968 79 | 76,597 16 | 1.13 | 1.51 | 1.73 | 130,175 09 | 163,337 00 | 293,512 09 | 6.64 |
| 1888 | 4,041,964,514 | 20,457,935 | 46,600 77 | 19,043 58 | 76,059 72 | 1.12 | 1.58 | 1.88 | 135,631 69 | 171,197 00 | 306,828 69 | 7.59 |
| 1889 | 4,148,781,634 | 19,231,940 | 44,135 10 | 20,192 39 | 75,360 77 | 1.06 | 1.54 | 1.81 | 161,567 81 | 181,104 00 | 342,671 81 | 8.25 |
| 1890 | 5,249,760,226 | 24,615,830 | 56,239 99 | 21,847 31 | 83,136 12 | 1.03 | 1.44 | 1.58 | 168,633 84 | 226,273 00 | 394,906 84 | 7.52 |
| 1891 | 6,534,375,161 | 29,300,240 | 60,012 77 | 22,556 49 | 89,060 35 | 0.90 | 1.24 | 1.36 | 182,854 12 | 226,273 00 | 409,127 12 | 6.26 |
| 1892 | 6,659,925,650 | 34,505,875 | 71,805 25 | 21,645 34 | 103,202 91 | 1.07 | 1.39 | 1.54 | 180,215 79 | 222,626 00 | 402,841 79 | 6 04 |
| 1893 | 6,646,021,488 | 26,013,840 | 64,702 86 | 27,078 65 | 100,013 77 | 0.97 | 1.37 | 1.50 | 188,481 70 | 224,732 00 | 413,213 70 | 6.21 |
| 1894 | 6,589,492,142 | 26,822,145 | 54,902 85 | 25,959 14 | 103,650 47 | 0.83 | 1.22 | 1.57 | 183,975 23 | 224,732 00 | 408,707 23 | 6.20 |
| 1895 | 6,639,680,218 | 21,178,879 | 40,221 85 | 23,305 49 | 75,502 63 | 0.66 | 1.01 | 1.13 | 148,908 06 | 224,732 00 | 373,640 C6 | 5.62 |
| 1896 | 6,781,187,980 | 18,606,508 | 25,307 90 | 22,529 41 | 55,626 60 | 0.37 | 0.70 | 0.82 | 145,209 80 | 225,545 00 | 370,754 80 | 5.46 |
| 1897 | 6,723,757,030 | 20,711,250 | 26,880 50 | 22,933 92 | 57,093 25 | 0.39 | 0.73 | 0.84 | 141,954 80 | 225,545 00 | 367,499 80 | 5.46 |
| 1898 | 7,136,334,102 | 22,100,145 | 27,572 00 | 23,983 07 | 53,134 40 | 0.38 | 0.71 | 0.74 | 146,354 54 | 222,400 00 | 368,754 54 | 5.16 |
| 1899 | 7,824,348,217 | 24,682,935 | 26,684 57 | 24,770 54 | 71,279 65 | 0.34 | 0.65 | 0.90 | 162,185 19 | 222,400 00 | 384,685 19 | 4.91 |
| 1900 | 8,064,384,595 | 24,148,565 | 38,668 54 | 27,314 83 | 80,339 85 | 0.47 | 0.80 | 0.99 | 169,824 11 | 222,749 00 | 392,573 11 | 4 86 |
| 1901 | 8,299,298,465 | 26,272,640 | 39,562 56 | 28,295 43 | 78,234 31 | 0.47 | 0.81 | 0.94 | 171,683 97 | 222,749 00 | 394,432 97 | 4.75 |
| 1902 | 7,993,916,325 | 23,769,930 | 37,409 30 | 28,170 36 | 74,625 82 | 0.46 | 0.82 | 0.93 | 175,020 73 | 223,078 00 | 398,098 73 | 4.98 |
| 1903 | 8,735,658,003 | 30,260,615 | 54,275 93 | 31,405 90 | 93,591 55 | 0.62 | 0.98 | 1.07 | 197,915 19 | 226,932 00 | 424,847 29 | 4.86 |
| 1904 | 9,076,711,575 | 32,843,325 | 52,643 51 | 30,680 11 | 94,010 62 | 0.58 | 0.91 | 1.03 | 217,575 63 | 252,739 00 | 470,314 63 | 5.18 |
| 1905 | 9,174,732,461 | 34,512,095 | 49,644 31 | 32,917 06 | 89,429 66 | 0.54 | 0.89 | 0.97 | 219,325 81 | 252,739 00 | 472,064 81 | 5.01 |
| 1906 | 9,859,486,415 | 27,657,495 | 39,713 57 | 42,075 21 | 92,942 16 | 0.40 | 0.83 | 0.94 | 224,909 74 | 253,409 00 | 478,318 74 | 4.75 |
| 1907 | 10,356,547,168 | 30,762,630 | 48,380 46 | 43,160 00 | 101,910 96 | 0.46 | 0.88 | 0.98 | 244,255 03 | 296,460 00 | 540,715 03 | 5 22 |
| 1908 | 10,669,056,355 | 31,750,575 | 49,226 46 | 44,563 78 | 105,320 85 | 0.46 | 0.87 | 0.98 | 252,079 97 | 306,452 00 | 558,531 97 | 5.23 |
| 1909 | 11,419,392,921 | 33,790,900 | 47,615 39 | 47,696 83 | 105,450 95 | 0.41 | 0.83 | 0.92 | 261,168 84 | 312,599 00 | 573,767 84 | 5.00 |

# Report of Assistant City Engineer.

ENGINEER'S DEPARTMENT,
Toronto, December 31st, 1909.

*Mr. C. H. Rust, City Engineer:*

DEAR SIR,—Herewith I submit the reports of the Departments under my charge for the year ending December 31st, 1909, viz.:

The Roadways Department, under Messrs. Powell and Stewart; the Sewer Department, under Mr. J. D. Shields: the Bridge Department, under Mr. R. Chadwick, and the Dredges, under Capt. Corcoran.

Two changes were made in the organization of the above Departments since they were put under my charge. The one caused by the death of Mr. Williams of the Bridge Department, whose vacant place was filled by the appointment of Mr. Chadwick. The other change was the appointment of Capt. Corcoran as superintendent over the three dredges.

The four Departments, in their respective reports, deal with the detail of their work, and have shown in tabular form such information as was thought of interest and value. It only remains for me to call attention to one or two matters generally known, but perhaps not emphasized with sufficient frequency.

First—More prompt repairs to cuts in the street, and a more thorough inspection and maintenance of old walks and macadam roads should be aimed at. To this end the different ward foremen were given assistants, somewhat younger and more active than themselves, in the hope that this combination of energy and experience would result in giving the City—which already has good streets—even better streets.

Second—An effort was also made to devise a street railway track which would at the same time be more permanent than the present steel and concrete construction, less noisy and easier on rolling stock. As this is of mutual interest to the Railway Company and the City, it is hoped that some of the proposed construction will be used in 1910. The idea is to abandon the steel tie and substitute a sufficient number of preserved

wood blocks to carry the rail and give resilience. The old tracks with wooden ties failed because the concrete was only between the ties and not under them. As the life of rails on busy streets is only 10 years, and the life of preserved wood is from 15 years up to 40 years, there is no reason why we should not go back to wood.

Third—The most important railway question before Toronto to-day, in my opinion, is not the agreement with the Toronto Street Railway, nor the various Suburban or Interurban railways, but the gauge of the present tracks. Toronto will never satisfactorily solve her transportation problem until the tracks are standard gauge. This is a thing which there is no sense in procrastinating. It is bad enough now, but gets worse with every track we lay. It is strongly to be recommended that the Ontario Railway Board be asked to order the change of gauge, street by street, and district by district, as rapidly as it can be accomplished. It is realized that there will be a cry about expense and delay in traffic, but the expense must be met and the delay reduced to a minimum by thoughtful arrangements.

The other points to which attention should be directed are:—

A more liberal expenditure on the cleaning and painting of steel bridges.

The present ridiculously low rental derived from areas under the walks and pavements adjacent to highly priced property should be increased. For instance, space 30 feet long by 10 feet wide can be rented on the corner of King and Yonge Streets from the City for $12 per year.

A nominal rental might be charged for all traders' sidings that cross our highways to cover the cost of inspection, etc.

Attention should be given to the convenience of pedestrians by obliging building contractors to make such arrangements as are necessary to avoid blocking sidewalks on down-town streets in the day time.

## HYDRAULIC DREDGES.

Nothing but minor repairs and painting were done on the dredges during this year. The management was slightly changed, Capt. Corcoran of No. 3 being promoted to full charge of the three dredges. Capt. Corcoran was supplied with a gasoline launch, so that he could properly supervise the work, and report to the office with less delay and

confusion than if all these dredges were under supervision direct from the office.

Extensive repairs will be necessary on the hull of No. 1, and considerable renewal on the machinery of all three.

STATEMENT OF THE WORK ACCOMPLISHED BY SAND PUMP No. 3, DURING THE SEASON OF 1909.

Channel to Don Diversion. On April 3rd started to pump at a point out in Toronto Bay, about abreast of Trinity Street. This was on account of low water at the entrance to Keating's Channel.

Don Diversion. On may 21st started on cut proper, and on July 22nd finished. About one-half of this work was in tough clay, which it was necessary to loosen with dynamite.

Sewers in Keating's Cut. On July 23rd started to work from a point opposite McGee Street to Carlaw Avenue. Finished August 3rd.

Leslie Street Sewer. Working from August 4th to August 6th.

Lang Street Sewer. Work from August 7th to August 10th.

Working at Jetties. From August 11th to September 22nd.

Ashbridge's Bay Marsh Improvement. On September 23rd started at a point abreast of Don Diversion, worked until October 2nd.

Working out in Bay, casting over into marsh, from October 4th to December 7th.

WORK ACCOMPLISHED BY SAND PUMP No. 2, DURING THE SEASON OF 1909.

Hanlan's Point Channel, from April 15th to 30th.

At Polson's for repairs from May 1st to 4th, amount of damage in storm.

Hanlan's Point Channel from May 5th to 10th.

Channel from Hanlan's to Hospital, from May 11th to 31st.

Filling in roadway at Hospital, from June 1st to 10th.

Filling in at rear of Island Pumping Station, from June 11th to 15th.

Filling in roadway at Ward's Island, from June 16th to August 18th.

Filling in new Island in front of Ward's, from August 19th to September 3rd.

Filling in Toothpick Island, from September 4th to 28th.

Filling in behind sea-wall on Lake Shore, from September 29th to October 28th.

Pumping out channel from Hooper Avenue to Goodwin's, from October 29th to November 17th.

Filling in west end of Toothpick Island, from November 18th to 25th.

Pumping out channel on west side of Island Park from Long Pond to Bay, from November 26th to December 7th.

WORK OF SAND PUMP No. 1, DURING 1909.

Deepening narrow part of west end of Keating's Channel for No. 3 dredge.

Moved from City to Island April 16th. Worked from Golman's to Goad's Cut, then turned north, filling marsh in at Miles, and digging channel. Finished July 15th.

Club House Channel, July 16th to July 28th.

Brouse's Cut, July 28th to August 4th.

Clandeboye Avenue Channel, August 5th to 28th.

Chippewa Avenue Cut, August 31st to October 13th.

Long Pond, October 15th to November 3rd.

St. Andrew's Avenue Channel, November 4th to 10th.

Long Pond, November 11th to November 24th.

Yours truly

T. S. SCOTT,
*Assistant City Engineer.*

# Pavements, Roadways, Permanent Sidewalks, Plank Sidewalks and Repairs.

City Engineer's Department,
Toronto, 31st December, 1909.

*Mr. C. H. Rust, City Engineer:*

Dear Sir.—I beg to submit the following report, which shews in general and detail, the work carried out under the supervision of the Roadways Branch of the City Engineer's Department, during the year ending 31st December, 1909.

In all, there were seven hundred and one works undertaken and carried to completion, of which four hundred and eighty-nine were contract works, one hundred and fifty-eight were day labor works, and fifty-four were laid by private contract, under City supervision.

A summary of works follows:—

| | |
|---|---|
| Carried over from 1908 | 83 |
| Contract works | 489 |
| Day labor works | 158 |
| Private permanent works | 54 |
| Total | 784 |

TABLE No. 1.

| | *Number of Works.* | | |
|---|---|---|---|
| | 1907. | 1908. | 1909. |
| Asphalt | 76 | 106 | 86 |
| Bitulithic | 28 | 26 | 33 |
| Concrete | 6 | 8 | 6 |
| Brick on concrete | 8 | 11 | 9 |
| Vitrified block (pavement) | 13 | 13 | 10 |
| Asphalt block (pavement) | 4 | 6 | 11 |
| Wooden block (treated) | 4 | .. | .. |
| Cedar block (on concrete) | .. | 1 | .. |
| Cedar block (on sand) | 1 | .. | .. |

| | *Number of Works.* | | |
|---|---|---|---|
| | 1907. | 1908. | 1909. |
| Granite setts | 1 | .. | .. |
| Macadam | 4 | 3 | 2 |
| Macadam reconstruction | 2 | 2 | .. |
| Tar macadam | 2 | .. | .. |
| Construction of new track allowance: | | | |
| Vitrified block | 2 | .. | 1 |
| Scoria, granite, etc. | .. | .. | 3 |
| Granite | .. | 2 | 4 |
| Reconstruction of track allowance: | | | |
| Scoria, vitrified block and concrete | 12 | 20 | 11 |
| Permanent intersections, T. A. | .. | 9 | 3 |
| Grading | 2 | 6 | 11 |
| Brick sidewalks | .. | 2 | .. |
| Concrete sidewalks | 428 | 430 | 392 |
| Concrete sidewalks (private contract) | 66 | 66 | 54 |
| Brick sidewalks (private contract) | .. | 1 | .. |
| Concrete curbing | 42 | 93 | 65 |
| | 701 | 805 | 701 |

An analysis of the year's work shows that the above statement of the number of works constructed represents 36.347 miles of pavements of all classes, and 52.839 miles of sidewalks. There were also constructed under separate contract 7.919 miles of concrete curbs. Table No. 2 shows the amount of each class of pavement laid.

The above mileage included 3.118 miles of new track allowance construction, and 7.070 miles of track allowance reconstruction, a total of 10.188 miles. In addition to this, the balance of the Street Railway trackage was constantly gone over, and such repairs made to the pavement as occasion demanded. Of the remaining 26.159 miles of pavement work laid during 1909, all but 1.387 miles was of a permanent character.

As was the case last year, the asphalt pavement was the largest element in this year's paving work, 15.411 miles, of a total of 36.347 miles being laid.

The day labor system, which was instituted some years ago, was continued during the past year with very satisfactory results. The City Engineer's tender was found to be lowest on 265 contracts: 157 sidewalks, 54 pavements, 6 gradings, and 48 curbs; 32 sidewalks, 4 pavements, 2 gradings, and 2 curbs were ordered by Council to be done

| Class of Work. | 905 | 1906 | 1907 | 1908 | 1909 |
|---|---|---|---|---|---|
| Pavements and Roadways. | | | | | |
| Asphalt | les. | Miles. | Miles. | Miles. | Miles. |
| Bitulithic | 404 | 11.600 | 17.276 | 21.031 | 15.411 |
| Cedar bl'k on s'd & pl'k fo'nd | 635 | 2.759 | 4.348 | 5.326 | 5.001 |
| Macadam | 630 | 1.441 | 0.089 | ..... | ..... |
| Tar macadam | 373 | 1.591 | 1.434 | 0.973 | 0.086 |
| Cobble | 257 | 0.247 | 0.738 | ..... | ..... |
| Tamarac on concrete | .. | ..... | ... .. | ..... | ..... |
| Cedar block on concrete | ... | ..... | ..... | ..... | .. ... |
| Stone setts on concrete | 500 | ..... | ..... | 0.060 | ..... |
| Scoria on concrete | 662 | ..... | 0.057 | ..... | ..... |
| Asphalt block | 600 | ..... | ..... | ..... | ..... |
| Brick on concrete | . | ..... | 0.281 | 0.546 | 2.334 |
| Brick on gravel | 751 | 1.504 | 2.860 | 2.353 | 1.611 |
| Brick on broken stone | .. | ..... | ..... | ..... | ..... |
| Treated wood blocks | ... | ..... | ..... | ..... | ..... |
| Concrete pavements | .. | ..... | 0.396 | ..... | ..... |
| Gravel | 055 | 0.144 | 0.448 | 0.553 | 0.415 |
| Reconstruct'n of track allow'd | | .... | ..... | ..... | ..... |
| Granite block track allowance | ... | 2.303 | 5.330 | 8.280 | 7.070 |
| Vitrified block track allowan | ... | 2.537 | ..... | 0.204 | 3.118 |
| | .. | 0.971 | 1.144 | ..... | |
| Totals | 902 | 25.097 | 34.401 | 39.326 | 35.046 |
| Sidewalks: | | | | | |
| Concrete | | | | | |
| Stone flag | 500 | 43.536 | 58.309 | 55.101 | 51.48 |
| Brick | .. | .. .. | ..... | ..... | .... |
| | 037 | 0·130 | ..... | 0.303 | .... |
| Totals | 537 | 43.666 | 58.309 | 55.404 | 51.48 |

TABLE No. 2.

MILEAGE OF DIFFERENT CLASSES OF PAVEMENTS, ROADWAYS AND SIDEWALKS LAID FROM 1890 TO 1909.

| Class of Work. | 1890 | 1891 | 1892 | 1893 | 1894 | 1895 | 1896 | 1897 | 1898 | 1899 | 1900 | 1901 | 1902 | 1903 | 1904 | 1905 | 1906 | 1907 | 1908 | 1909 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Pavements and Roadways. | Miles. | Miles. | Miles. | Miles. | Miles. | Miles. | Miles. | Miles. | Miles. | Miles. | Miles. | Miles. | Miles. | Miles. | Miles. | Miles. | Miles. | Miles. | Miles. | Miles. |
| Asphalt | 1.73 | 1.635 | 6.216 | 5.607 | 3.067 | 1.156 | 0.366 | 0.460 | 3.408 | 6.215 | 6.348 | 4.449 | 5.237 | 6.662 | 6.336 | 5.404 | 11.600 | 17.276 | 21.031 | 15.411 |
| Bitulithic | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 0.063 | 1.528 | 1.635 | 2.759 | 4.348 | 5.326 | 5.001 |
| Cedar bl'k on s'd & pl'k fo'ndat'n | 15.51 | 9.186 | 3.349 | 3.249 | 0.852 | 1.753 | 0.428 | 2.459 | 4.831 | 3.151 | 7.842 | 2.725 | 2.191 | 1.774 | 0.511 | 0.630 | 1.441 | 0.089 | ..... | ..... |
| Macadam | ..... | 0.123 | 0.494 | ..... | 0.059 | 1.663 | 1.661 | 0.510 | 2.089 | 5.013 | 2.503 | 2.733 | 5.486 | 2.737 | 1.940 | 3.373 | 1.591 | 1.434 | 0.973 | 0.086 |
| Tar macadam | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 2.148 | 0.920 | 1.257 | 0.247 | 0.738 | ..... | ..... |
| Cobble | 0.10 | 0.069 | 0.366 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 0.068 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Tamarac on concrete | 0.192 | 00.77 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Cedar block on concrete | ..... | ..... | 8.416 | 2.185 | 0.826 | 0.227 | 0.038 | ..... | 0.084 | 0.079 | ..... | 0.021 | ..... | 0 069 | ..... | 0.500 | ..... | ..... | 0.060 | ..... |
| Stone setts on concrete | ..... | ..... | 0.705 | 3.743 | 2.563 | 0.085 | ..... | ..... | ..... | ..... | 0.107 | 0.028 | ..... | 0.427 | ..... | 0.662 | ..... | 0.057 | ..... | ..... |
| Scoria on concrete | 0.138 | ..... | 0.028 | ..... | ..... | 0.117 | ..... | ..... | 2.986 | 1.367 | 1.247 | 0.669 | ..... | ..... | 0.613 | 0.600 | ..... | ..... | ..... | ..... |
| Asphalt block | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 0.281 | 0.546 | 2.334 |
| Brick on concrete | ..... | ..... | ..... | 3.964 | 0.787 | 0.744 | 1.032 | 5.803 | 6.079 | 3.670 | 5.472 | 2.885 | 4.272 | 2.602 | 2.876 | 3.751 | 1.504 | 2.860 | 2.353 | 1.611 |
| Brick on gravel | ..... | ..... | ..... | ... | ..... | ..... | 0.028 | 0.838 | 0.352 | 0.943 | 0.057 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Brick on broken stone | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 0.546 | 0.516 | 1.627 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Treated wood blocks | ..... | ..... | ..... | ... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 0.396 | ..... | ..... |
| Concrete pavements | ..... | ..... | ..... | ..... | ..... | 0.071 | ..... | ..... | 0.057 | ..... | ..... | ..... | 0.041 | 0.147 | 0.053 | 0.055 | 0.144 | 0.448 | 0.553 | 0.415 |
| Gravel | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 3.138 | 4.756 | 0.069 | 0.303 | 0.222 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Reconstruct'n of track allow'nce | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 0.203 | 0.270 | 0.186 | ..... | 0.398 | ..... | 2.303 | 5.330 | 8.280 | 7.070 |
| Granite block track allowance | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 2.537 | ..... | 0.204 | 3.118 |
| Vitrified block track allowance | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 0.971 | 1.144 | ..... | |
| Totals | 17.670 | 11.090 | 19 574 | 18.748 | 8.154 | 5.816 | 3.553 | 13.208 | 24.642 | 21.120 | 24.666 | 15.629 | 17.413 | 16.839 | 14.756 | 17.902 | 25.097 | 34.401 | 39.326 | 35 046 |
| Sidewalks: | | | | | | | | | | | | | | | | | | | | |
| Concrete | 1.426 | 1.930 | 1.508 | 2.259 | 1.137 | 1.918 | 0 612 | 1.050 | 2.548 | 5.474 | 15.227 | 17.305 | 27.360 | 34.896 | 31.058 | 37.500 | 43.536 | 58.309 | 55.101 | 51.48 |
| Stone flag | 1.273 | 0.398 | 0.104 | 0.035 | 0.011 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Brick | ..... | ..... | ..... | ..... | ..... | ..... | 0.204 | 0.823 | 1.188 | 0.292 | 0.038 | 0.511 | 0.049 | 0.093 | 0.001 | 0.037 | 0·130 | ..... | 0.303 | .... |
| Totals | 2.699 | 2.328 | 1.612 | 2.294 | 1.148 | 1.918 | 0.816 | 1.873 | 3.736 | 5.766 | 15.265 | 17.816 | 27.409 | 34.989 | 31.059 | 37.537 | 43.666 | 58.309 | 55.404 | 51.48 |

## TABLE No. 3.

SHOWING THE DIFFERENT CLASSES OF PAVEMENTS AND ROADWAYS AND MILEAGE OF SAME FROM 1881 TO 1909.

| Year. | Cedar Block. | Stone and Scoria. | Asphalt. | Asphalt Block. | Wood on Concrete | Macadam. | Tar Macadam. | Bitulithic. | Brick. | Gravel. | Concrete. | Unpaved | Total Mileage. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Miles. | Miles. | Miles. | Miles. | Miles. | Miles. | Miles. | Miles. | Miles. | Miles. | Miles. | Miles. | Miles. |
| 1881.. | 3.51 | 0.03 | ..... | ..... | ..... | 50.92 | ..... | ..... | .... | ..... | ..... | 62.39 | 116.85 |
| 1882 . | 13.41 | 0.03 | ..... | ..... | ..... | 48.28 | ..... | ..... | ..... | ..... | ..... | 55.13 | 116.85 |
| 1883.. | 26.90 | 0.03 | ..... | ..... | ..... | 54.37 | ..... | ..... | ..... | ..... | ..... | 54.07 | 135.57 |
| 1884.. | 33.76 | 0.25 | ..... | ..... | ..... | 52.32 | ..... | ..... | ..... | ..... | ..... | 76.77 | 163.10 |
| 1885.. | 39.84 | 0.25 | ..... | ..... | ..... | 50.17 | ..... | ..... | ..... | ..... | ..... | 75.98 | 166.24 |
| 1886.. | 48.99 | 0.36 | ..... | ..... | .... | 47.36 | ..... | ..... | ..... | ..... | ..... | 72.18 | 168.89 |
| 1887.. | 64.11 | 0.36 | 0.07 | ..... | ..... | 45.14 | ..... | ..... | .. .. | ..... | ..... | 59.21 | 168.89 |
| 1888.. | 79.55 | 0.36 | 0.25 | ..... .. | ..... | 42.76 | ..... | ..... | ..... | ..... | ..... | 49.87 | 172.79 |
| 1889. | 92.39 | 0.36 | 3.36 | ..... | ..... | 38.65 | ..... | .... | .... | ..... | ..... | 107.43 | 242.19 |
| 1890.. | 109.57 | 0.36 | 5.08 | ..... . | ..... | 36.63 | ..... | .... | .... | ..... | ..... | 90.55 | 242.19 |
| 1891.. | 116.83 | 0.59 | 6.66 | ..... | 0.49 | 36 39 | ..... | ..... | ..... | ..... | ..... | 89.44 | 250.40 |
| 1892.. | 116.86 | 0.65 | 10.49 | ..... | 0 49 | 36.39 | ..... | ..... | ..... | ..... | ..... | 84.89 | 252.71 |
| 1893 | 112.19 | 0.79 | 11.28 | ..... | 0.49 | 34.98 | ... ... | ..... | ..... | ..... | ..... | 82.05 | 253.35 |
| 1894.. | 111.16 | 0.81 | 13.70 | .... ... | 0.49 | 39.95 | ..... | ..... | ..... | ..... | ..... | 79.98 | 253.48 |
| 1895 | 109.78 | 0.81 | 14.38 | ..... | 0.49 | 39.15 | ..... | .... | 0.38 | ..... | ..... | 79.48 | 256.40 |
| 1896.. | 108 70 | 0.81 | 14 61 | ..... . | 0.53 | 39.71 | ..... | .... | 1.32 | ..... | .... . | 79.74 | 257.40 |
| 1897. | 101.36 | 0.81 | 15.07 | ..... | 0.53 | 40.50 | ..... | ..... | 3.58 | 3.22 | ..... | 78.45 | 258.30 |
| 1898... | 94.90 | 0.65 | 18.30 | ..... | 0.61 | 41.91 | ..... | ..... | 5.91 | 4.56 | ..... | 78.67 | 257.93 |
| 1899.. | 81.77 | 0.65 | 24.33 | ..... | 0.67 | 45.03 | . . .... | ..... | 8.77 | 5.03 | ..... | 78.14 | 259.03 |
| 1900.. | 70.49 | 0.68 | 30.81 | ..... | 0.67 | 46.69 | 0.21 | ..... | 10.77 | 5.34 | ..... | 77.26 | 259.12 |
| 1901.. | 61.48 | 0.81 | 34.92 | ..... | 0.67 | 48.36 | 0.26 | ..... | 11.53 | 5.54 | ..... | 77.22 | 259.60 |
| 1902.. | 48.57 | 0.81 | 39.75 | ..... | 0.25 | 50.02 | 1.12 | ..... | 12.51 | 5.39 | .... . | 77.66 | 260.14 |
| 1903.. | 43.25 | 1.15 | 46.44 | ..... | 0.26 | 50.11 | 3.26 | ..... | 14.24 | 5.87 | 0.14 | 79.39 | 265.40 |
| 1904.. | *54.33 | 1.11 | 52.10 | ..... | 0.26 | *54.56 | 4.20 | 1.59 | 15.54 | 5.83 | 0.20 | 75.81 | 265.45 |
| 1905.. | *48.83 | 1.74 | 56.29 | ..... | 0.26 | *54.92 | 5.46 | 3.22 | 17.14 | 5.83 | 0.13 | 82.36 | 276.13 |
| 1906.. | *40.53 | 1.74 | 63.71 | ..... | 0.51 | *54.39 | 5.70 | 5.98 | 18 58 | 5.83 | 0.27 | 80 17 | 277.46 |
| 1907.. | *32.29 | 1.64 | 80.04 | 0.34 | 0.66 | *47.83 | 6.43 | 10.33 | 20.73 | 5.10 | 0.22 | 73.90 | 279.51 |
| 1908.. | *24.77 | 2.36 | 101.07 | 0.97 | 0.45 | *44.16 | 5.71 | 15.66 | 23.90 | 13.65 | 1.56 | 71.95 | 306.31 |
| 1909. | *17.71 | 2.34 | 118.44 | 4.14 | 0.49 | *45.91 | 3.88 | 20.68 | 25.41 | 21.15 | 1.98 | 145.44 | 407.57 |

* Including cedar block and macadam with paved track allowance respectively.

by day labor without the formality of calling for tenders. One hundred and thirty of the total number (including those ordered by Council), were done by day labor, while of the remaining one hundred and seventy-five, one hundred and sixteen were transferred to contractors at the City's figures, and the remaining fifty-nine carried over to 1910. By the continuance of this system a saving of $10,812.25 was effected, which amount includes $1,914.50 for inspector's wages.

Table No. 2 shows the year's work, classified under the various heads and compared with the work of former years. It is evident from this table that pavements of a permanent nature are growing in popularity, such pavements as cedar blocks and macadam showing a pronounced decrease.

Below is a comparison between the number of plans, drawings and estimates made during 1908 and 1909.

| | 1908. | 1909. |
|---|---|---|
| Roadway plans | 160 | 154 |
| Detailed drawings | 35 | 35 |
| Estimates | 1,061 | 823 |

The first pavement laid under the Local Improvement System was constructed during the year 1881, and the annual variation in mileage of paved and unpaved streets, with classification of same, up to end of 1909, is shown in Table No. 3.

Table No. 4 shows the percentages of the different classes of pavement and roadways.

TABLE No. 4.

| | |
|---|---|
| *Cedar block | 4.34 |
| Stone and scoria | .57 |
| Asphalt | 29.07 |
| Asphalt block | 1.01 |
| Wood on concrete (treated) | 0.12 |
| *Macadam | 11.26 |
| Tar macadam | .95 |
| Bitulithic | 5.08 |
| Brick | 6.24 |
| Gravel | 5.18 |
| Concrete | .49 |
| Unpaved | 35.69 |
| | 100.00 |

* Including pavement with paved track allowance.

## ASPHALT PAVEMENTS.

During the year there were laid a total of 86 asphalt pavements of all classes,—of these 86 pavements, 41 were of the light type and 7 were heavy.

As was forecast in last year's report, a new class of asphalt pavement, known as the medium type, was introduced, and 37 were laid. It is noticeable that while the number of these pavements laid is slightly under that of the light type, the yardage is largely in excess, and consequently the necessity of such a pavement is evident. The total yardage laid was 230,657 square yards, of which 49,139 square yards was of the heavy type having 2-inch asphalt surface, 1-inch binder course, and 6-inch concrete foundation; 69,179 square yards of light pavement composed of 2-inch asphalt surface, and 4-inch concrete base; 110,743 square yards of medium asphalt pavement, having 2-inch asphalt surface, 1-inch binder, and 5-inch concrete base.

In several cases where brick pavements have been down for a number of years, the residents preferring a less noisy pavement, have petitioned to have the bricks surfaced with asphalt. During the past year, one brick pavement was so treated, an asphalt surface consisting of 2 inches of asphalt, and 1 inch of binder being laid. This work was not necessitated by any disintegration of the original pavement, but was done expressly at the request of the property owners, who signified their willingness to pay for the asphalt surface. As the results have, as was expected, been good, it is probable that ratepayers, who live on other residence streets paved with brick, will take the same view of the matter, and have an asphalt surface laid.

The above yardage represents a total mileage of 15.111 miles, as against 21.031 miles laid during 1908.

It must be borne in mind that the above yardage includes concrete gutters, which were in every case built on each side of the pavement, and average 15 inches in width.

Below is found a table, brought to date, showing a comparison between the maximum, minimum and average prices for asphalt pavements, from 1901 to 1909.

| | | Maximum. | Minimum. | Average. |
|---|---|---|---|---|
| 1901 | Heavy | $2 70 | $2 30 | $2 54 6/10 |
| " | Light | 2 23 | 1 88 | 2 04 1/2 |
| 1902 | Heavy | 2 60 | 2 45 | 2 54 |
| " | Light | 2 15 | 1 66 | 2 01 1/4 |
| 1903 | Heavy | 2 50 | 2 14 | 2 21 3/5 |
| " | Light | 1 88 | 1 60 | 1 70 |
| 1904 | Heavy | 2 30 | 2 15 | 2 22 6/10 |
| " | Light | 1 83 | 1 53 | 1 65 |
| 1905 | Heavy | 2 19 | 1 99 | 2 05 |
| " | Light | 1 66 | 1 36 | 1 51 |
| 1906 | Heavy | 2 01 | 1 79 | 1 91 4/5 |
| " | Lignt | 1 64 | 1 38 | 1 42 2/5 |
| 1907 | Heavy | 2 27 | 2 14 | 2 19 |
| " | Light | 1 83 | 1 50 | 1 62 |
| 1908 | Heavy | 2 33 | 1 92 | 2 15 2/3 |
| " | Light | 1 96 | 1 33 | 1 51 2/5 |
| 1909 | Heavy | 1 95 | 1 59 | 1 72 2/3 |
| " | Medium | 1 80 | 1 40 | 1 60 |
| " | Light | 1 44 | 1 12 | 1 28 |

The extremely low prices shown for the past year were brought about rather by the keen competition existing among the contractors, than by a reduction in the actual cost of the pavement. As it is impossible for contractors to lay asphalt pavements at these prices and make a reasonable profit, it is not probable that the City will again obtain so durable a pavement at such a small cost.

During the year the City Engineer tendered on all asphalt pavements, being awarded 29 out of a total of 86 contracts. In addition to these, 2 were ordered to be done by day labor, without the formality of calling for tenders. Of these 31 pavements, 11 were transferred to contractors at the City's figures. The total yardage awarded to the City was 61,598 square yards, of which 27,757 square yards comprised the 11 pavements transferred, leaving a total of 33,841 square yards of asphalt laid by the City plant. The above yardage represents a mileage of 2.50 miles, and is 16.81 per cent. of the total amount of asphalt laid during 1909.

This department, in addition to the above new work, made such repairs as were necessary to all asphalt pavements upon which the contractor's guarantees had expired. The amount of repairs required totalled 50,884 square yards, and the average cost per square yard was 54.2 cents.

Roncevalles Avenue Intersection.

Roncevalles Avenue Intersection.

The total yardage out of guarantee up to the end of 1909 is 378,385 square yards. As this yardage will be largely increased each succeeding year, it will not be long before the City will be compelled to erect a second plant in order to keep pace with the necessary repairs.

Further details regarding repairs are to be found in the report on maintenance.

In conjunction with asphalt pavements, 44,397 lineal feet of concrete curb and gutter were placed during the year.

The quantities, prices and other details connected with the asphalt pavements constructed during the year are tabulated in Tables Nos. 5 and 6. The physical and chemical analyses of the asphalt mixtures used in these pavements are also tabulated separately.

## ASPHALT BLOCK PAVEMENT.

There were constructed, during the year, 11 asphalt block pavements, having a total yardage of 34,018 square yards, which is a large increase over the 9,469 square yards laid in 1908. Of the eleven pavements laid, ten were composed of 3-inch blocks, on 4-inch concrete base, and the remaining one was of 4-inch blocks on 6-inch concrete base.

The above yardage represents a mileage of 2.334 miles.

The growth of this pavement is due solely to the activity of the agents of the company manufacturing the blocks, who circulate petitions among the property owners, and in the event of these petitions being sufficiently signed, it is recommended to Council that the pavement be laid.

In conjunction with Asphalt Block Pavements, 7,811 lineal feet of concrete curbing and gutter were constructed.

## BRICK PAVEMENTS.

During the year 9 brick pavements, and 10 vitrified block pavements were laid, aggregating 8,588 square yards, and 12,653 square yards respectively, or a total of 21,241 square yards. This is a decrease of 95.07 square yards from the amount laid last year, and is due to the prejudice in the minds of the public against the pavement on account of noisiness and not to any lack of merit in the material.

The above yardage represents a total mileage of 1.611 miles, and the amount of concrete curbing laid in conjunction with this class of pavement was 12,188 lineal feet.

The quality of the blocks as determined by the standard abrasion test is indicated by the following ratio:—

Canadian (after 1,000 revols.), 13.6 per cent. loss in weight.
American (after 1,000 revols.), 9.3 per cent. loss in weight.
Canadian (after 2,000 revols.), 21.7 per cent. loss in weight.
American (after 2,000 revols.), 14 per cent. loss in weight.

## TRACK ALLOWANCE CONSTRUCTION AND RECONSTRUCTION.

During the past year 8 new track allowances were constructed and 11 old ones reconstructed aggregating respectively 3.118 miles, and 7.070 miles.

All the new work consisted of a 12-inch concrete base with inset steel ties. This form of construction while giving good satisfaction is very noisy owing to the great rigidity of the foundation. It is the intention, during the coming season, to modify this, if possible, by the use of wooden ties or wooden blocks, imbedded in the concrete.

In addition to the above, the intersections of Roncesvalles, Queen and King, and of Roncesvalles, Dundas and Boustead were laid, with heavy steel on concrete foundation. The details of all track work are to be found in Tables Nos. 11 and 14.

Below is a table showing the streets upon which new steel has been laid since 1906:—

| Year. | Street. | From. | To. | Class of Steel. | Length of Track. |
|---|---|---|---|---|---|
| *1906 | Dupont. ... | Bathurst.... | Christie. .... | 7-in. — 90 lb. | 1918 lin. ft. double |
| *1906 | Dupont. ... | Walmer. ... | Bathurst .... | 7 " — 90 " | 1634 " " |
| *1906 | Gerrard. .... | Leslie. ..... | Greenwood.. | 7 " — 90 " | 1396 " " |
| *1906 | Gerrard. .... | Pape. .. .. | Leslie ..... | 7 " — 90 " | 1977 " " |
| *1906 | Lansdowne.. | College. .... | Bloor. .... | 7 " — 90 " | 2850 " " |
| †1906 | Richmond .. | York. ..... | Victoria..... | 7 " — 90 " | 1925 " " |
| †1906 | Scott. .... | Front. .... | Wellington.. | 7 " — 90 " | 299 " single |
| †1906 | Victoria..... | Richmond... | Queen ..... | 7 " — 90 " | 298 " double |
| †1906 | Wellington.. | Scott. . .... | Yonge ..... | 7 " — 90 " | 298 " single |
| †1906 | Lansdowne | and College.. | ..... | 7 " — 90 " | 117 " double |

| Year. | Street. | From. | To. | Class of Steel. | Length of Track. |
|---|---|---|---|---|---|
| *1906 | Avenue Road | 241 ft. n. Cottingham... | St. Clair .... | 7-in.— 90 lb. | 1736 lin. ft. double |
| *1906 | Dovercourt.. | Bloor. .... | Van Horne . | 7 " — 90 " | 3390 " " |
| †1906 | Queen ..... | Yonge ..... | Spadina..... | 7 " — 90 " | 4556 " " |
| †1906 | College. .... | Grace. ..... | Givens..... | 7 " — 90 " | 1600 " " |
| †1906 | Gerrard. .. | Bridge..... | Munro .... | 7 " — 90 " | 328 " " |
| †1906 | Gerrard. .... | Bridge..... | 200 feet west | 7 " — 90 " | 200 " " |
| †1907 | King. ..... | Spadina..... | Sherbourne.. | 7 " — 90 " | 6973 " " |
| †1907 | Queen ..... | Don.... ... | Broadview. . | 7 " — 90 " | 1117 " " |
| †1907 | Queen .... | Spadina.... | Bathurst .... | 7 " — 90 " | 1993 " " |
| †1907 | Queen ..... | Kingston Rd. | Woodbine.... | 7 " — 90 " | 1887 " " |
| †1907 | Queen ..... | Pape..... .. | G.T.R ..... | 7 " — 90 " | 2165 " " |
| †1907 | Yonge ..... | Bloor..... | C.P.R ..... | 7 " — 90 " | 3962 " " |
| *1907 | Roncesvailes | Queen ..... | Dundas. .... | 7 " — 90 " | 4944 " " |
| *1908 | Bloor ..... | Dufferin.... | Lansdowne . | 7 " — 90 " | 1956 " " |
| †1908 | College. .... | Spadina.... | McCaul..... | 7 " — 90 " | 1697 " " |
| †1908 | Front .... . | Yonge ..... | Church. .... | 7 " — 90 " | 950 " " |
| †1908 | Front ..... | York..... | Simcoe. .... | 7 " — 90 " | 630 " single |
| †1908 | King. ..... | Spadina..... | Bathurst ... | 7 " — 90 " | 2020 " double |
| †1908 | Queen .... | Bathurst.... | Dundas. ... | 7 " — 90 " | 4035 " " |
| *1908 | Queen .... | Roncesvalles | around Sunnyside Loop. . ..... | 7 " — 90 " | 490 " " |
| †1908 | Spadina..... | S.s. Spadina Crescent. | Bloor..... | 7 " — 90 " | 2345 " " |
| *1908 | Springhurst . | Dufferin — west | and south. | 4½" — .. " | 573 " single |
| †1909 | Queen ..... | Don ..... | Broadview.. | 7 " — 90 " | 1117 " double |
| *1909 | Gerrard. .... | Subway. .... | Pape. ..... | 7 " — 70 " | 702 " " with 108 ft. girder on curves. |
| †1909 | Yonge ..... | College. ... | Bloor..... | 7 " — 90 " | 3756 lin. ft. double |
| *1909 | Avenue Road | Bloor..... | Davenport .. | 7 " — 70 " | 2244 " " |
| *1909 | Shaw. ..... | King. ..... | Queen ... | 7 " — 70 " | 1271 " " |
| *1909 | College. .... | Yonge ..... | McCaul. ... | 7 " — 80 " | 2806 " " |
| *1909 | Arthur. .... | Bathurst.... | Ossington. .. | 7 " — 70 " | 3975 " " |
| †1909 | Roncesvalles. | Queen ..... | Harvard..... | 7 " — 90 " | 485 " W.track |
| *1909 | Roncesvalles. | Queen ..... | Harvard. .. | 7 " — 70 " | 485 " E.track |
| | Six curves in | to Barns ... | ..... ... | 7 " —108 " | 300 " single |

INTERSECTIONS.

| Year. | Streets. | Class of Steel. | Length of Track. |
|---|---|---|---|
| †1909 | Roncesvalles and Dundas.... ..... | 7-in.— 90 lb. | Straight track only. |
| †1909 | Roncesvalles and Dundas..... ..... | 7 " —108 " | On curves. |
| †1909 | Roncesvalles, King and Queen. ..... | 7 " — 90 " | Straight track only. |
| †1909 | Roncesvalles, King and Queen. ..... | 7 " —108 " | On curves. |

* T-Rail laid.
† Flange Rail laid.

## BITULITHIC PAVEMENTS.

A total of 33 bitulithic pavements were constructed during the past year, the yardage laid amounting to 73,775 square yards. This yardage represents a mileage of 5.001 miles and is very close to the amount laid during 1908.

It is proposed to lay, during the coming summer, a bitulithic surface on an old macadam roadway after the surface has been properly graded. If this pavement proves a success, it is possible that more of this class of work will be done. As far as can be seen at the present time, there is no reason why such a pavement should not give as good satisfaction as the earlier bitulithics, particularly as the macadam, which will furnish the foundation, has been thoroughly compacted by years of passing travel.

23,333 lineal feet of concrete curbing and gutter were constructed in conjunction with bitulithic pavements.

Further details are to be found in Table No. 5.

## MACADAM ROADWAYS.

The macadam roadway construction carried out this year shows a decrease from last year's work; only 2 roadways totalling 1,170 square yards, or .086 miles, were laid.

The shrinkage in the amount of this class of work is to be noted with satisfaction, as macadam, while being the most suitable type under certain conditions, is not desirable for city streets, owing to the dust and mud which it creates.

456 lineal feet of concrete curbing were laid in conjunction with macadam roadways, during 1909.

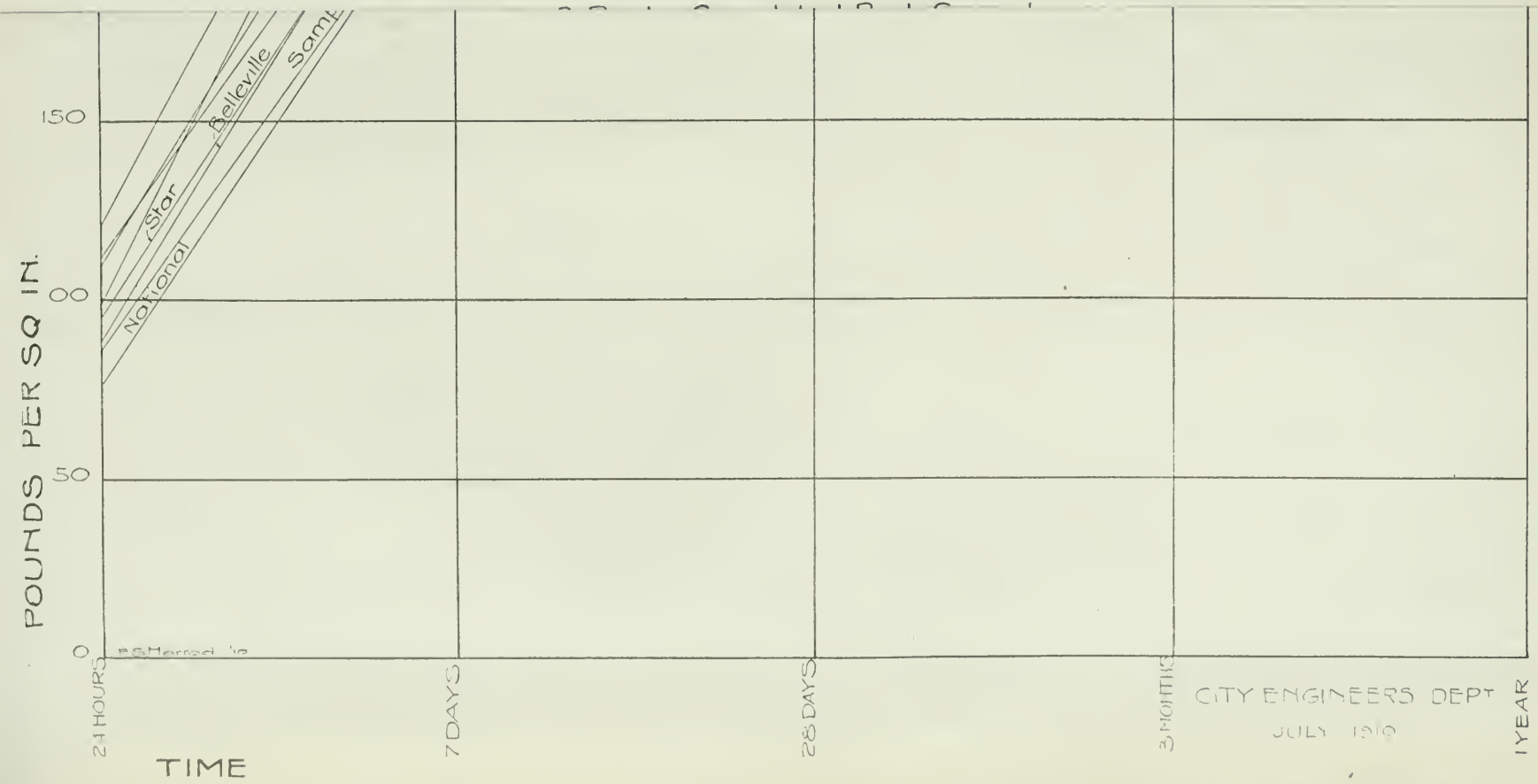
See Tables Nos. 5 and 6 for details.

## CONCRETE PAVEMENTS.

The construction of concrete pavements this year was again confined to lanes upon which the travel of wheeled vehicles was not excessive. Six pavements were laid, having an aggregate yardage of 2,883 square yards, and a mileage of 0.415 miles. This is a decrease of .138 miles from last year's mileage of .553 miles.

1909

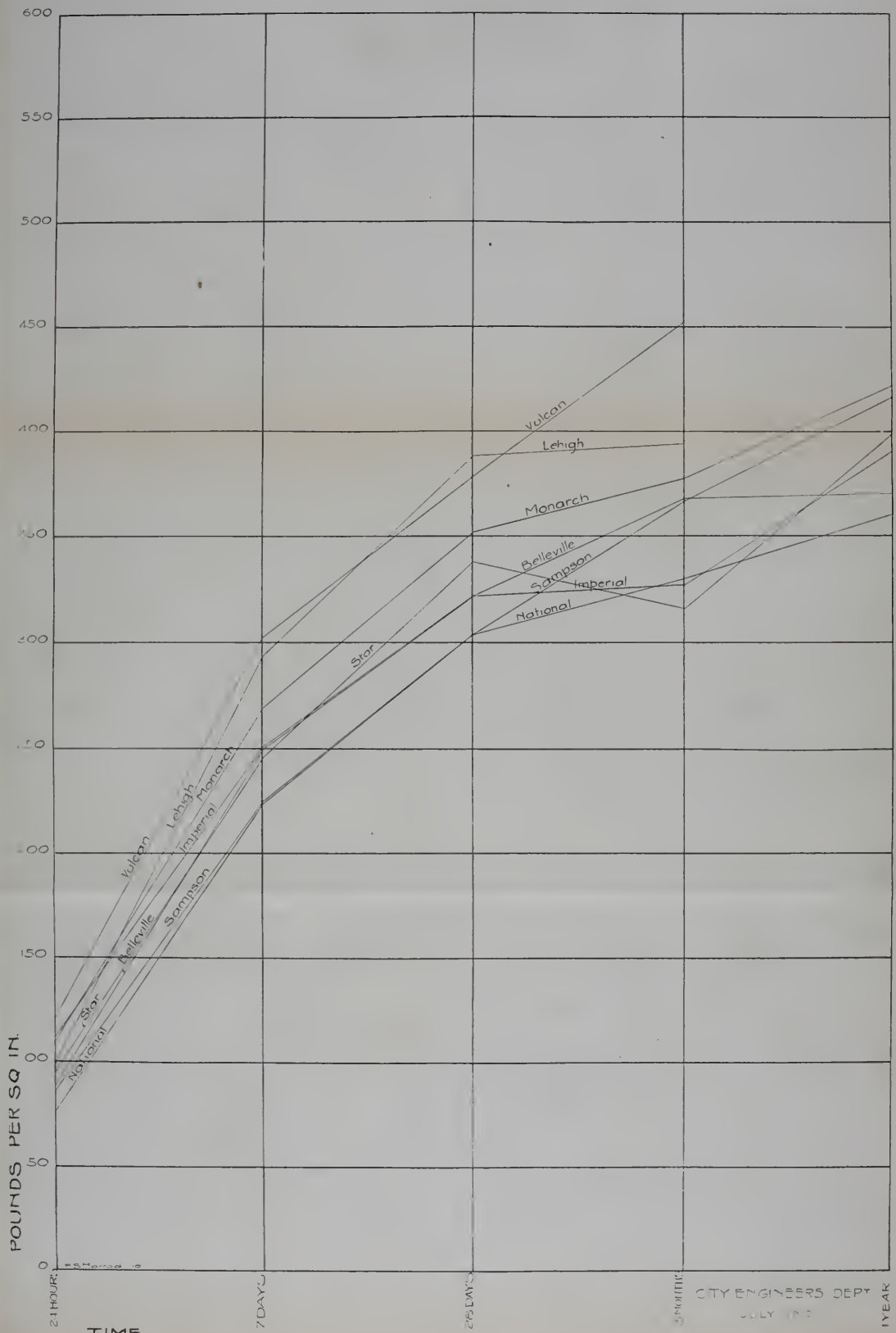
# CEMENT TESTS



1909

# CEMENT TESTS

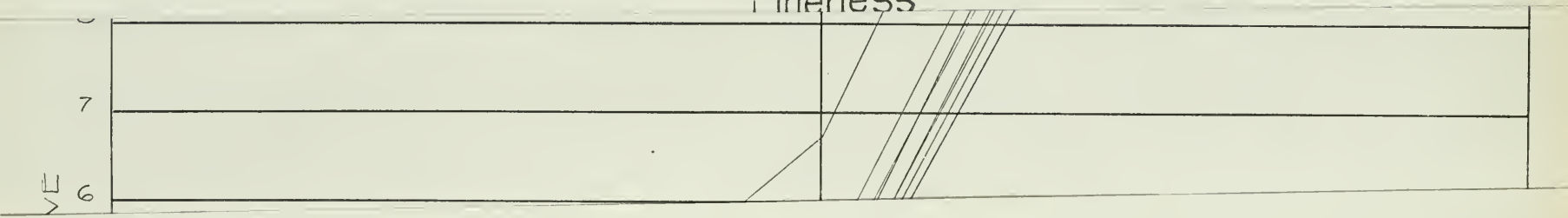
3 Parts Sand to 1 Part Cement



1909

# CEMENT TESTS

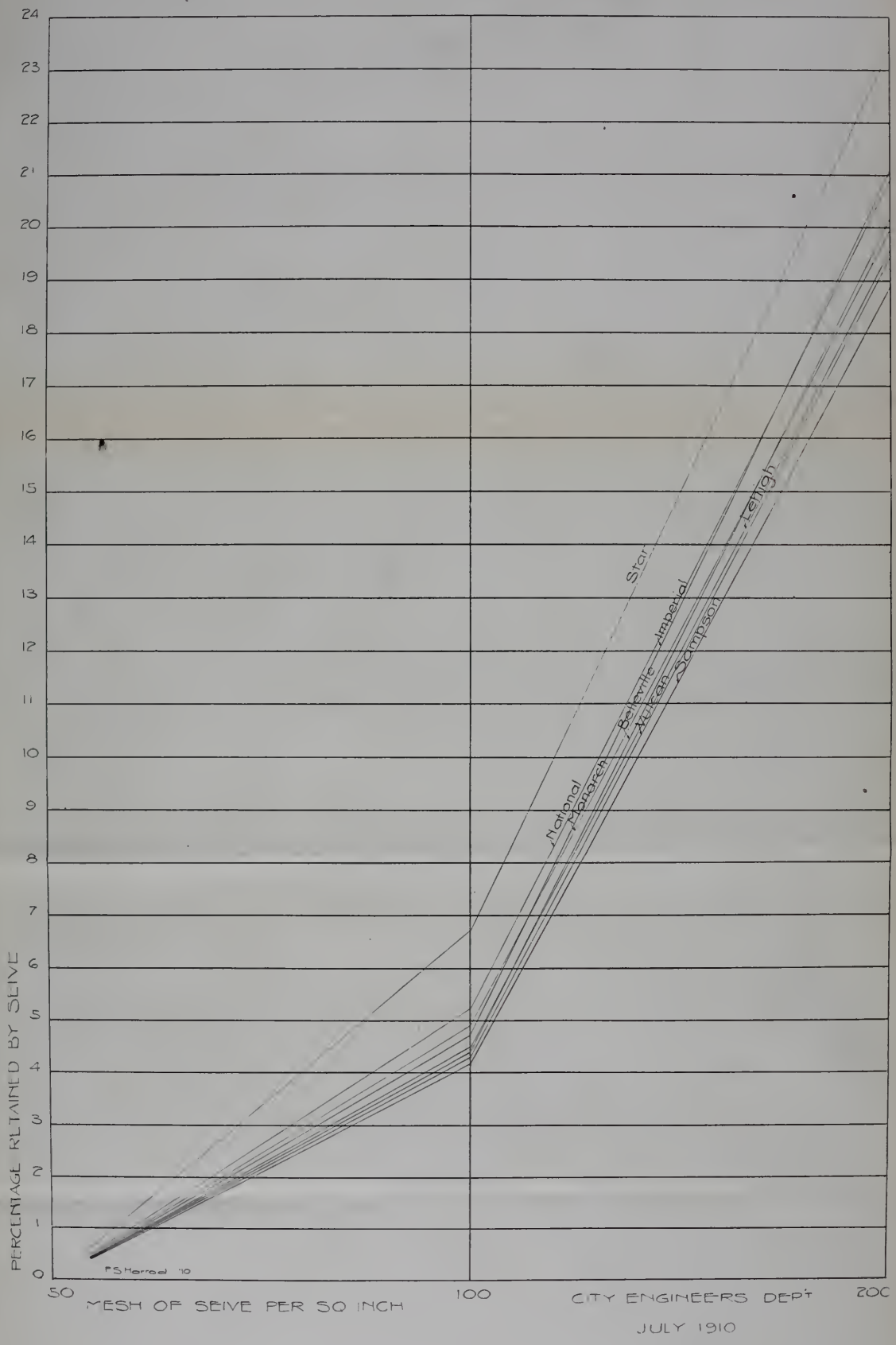
## Fineness



1909

# CEMENT TESTS

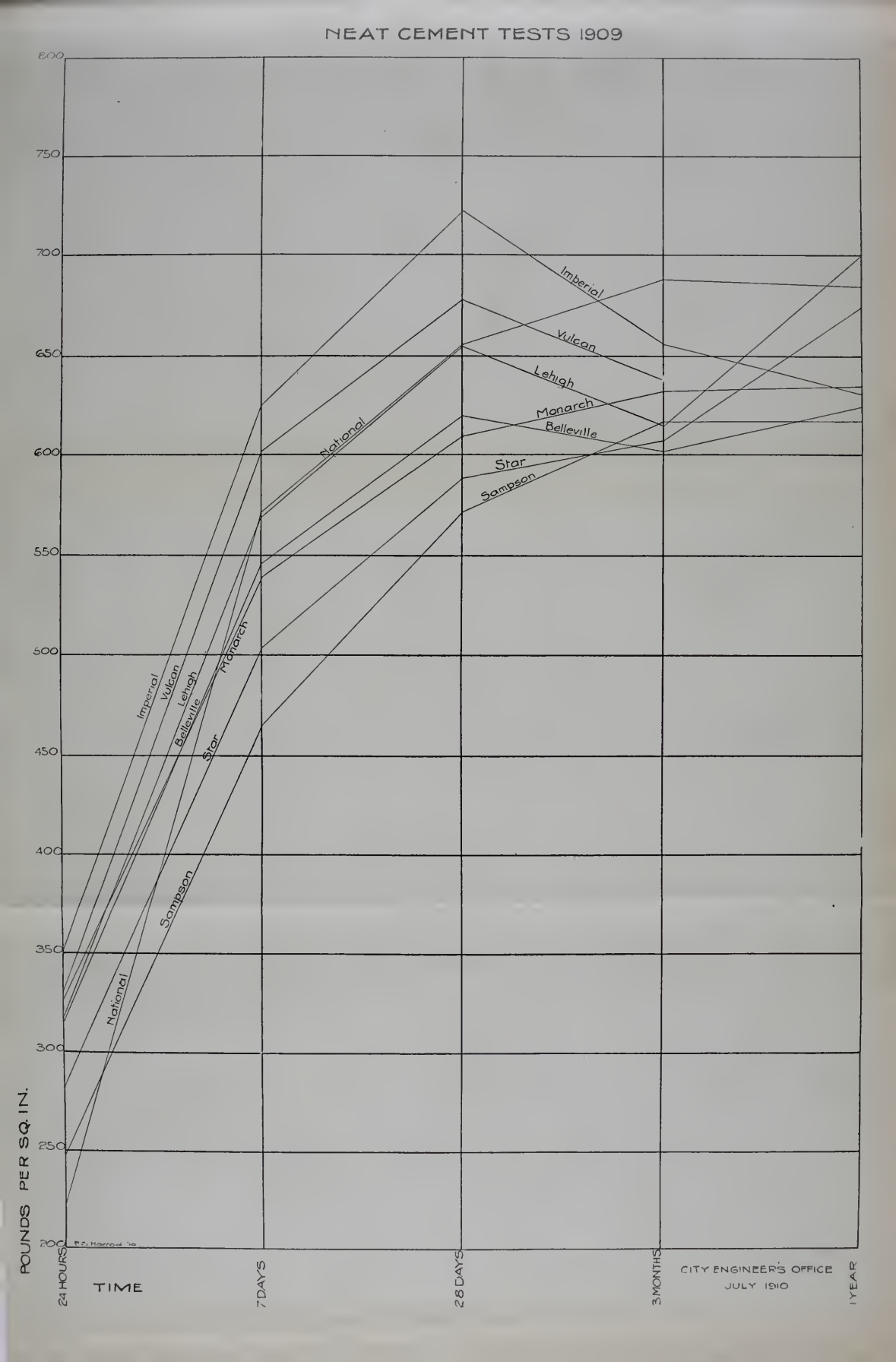
## Fineness




CITY ENGINEERS DEPT

JULY 1910

NEAT CEMENT TESTS 1909
POUNDS PER SQ. IN.
350
300
250
200
24 HOURS
7 DAYS
28 DAYS
3 MONTHS
1 YEAR
TIME
National
CITY ENGINEER'S OFFICE
JULY 1910


NEAT CEMENT TESTS 1909
800
750
700
650
600
550
500
450
400
350
300
250
200
POUNDS PER SQ. IN.
24 HOURS
7 DAYS
28 DAYS
3 MONTHS
1 YEAR
TIME
CITY ENGINEER'S OFFICE
JULY 1910
Imperial
Vulcan
Lehigh
Monarch
Belleville
National
Star
Sampson

RECORD OF CEMENT TESTS, From July 1st, 1908, to July 1st, 1909.

| Brand. | No. of Samples Tested. | No. of Samples Rejected. | Soundness (Faiji Test). | Specific Gravity. | Residue on Sieve. | | | Setting in Minutes. | | Percentage of Water Used in Mixing. | | Tensile Strength in Pounds per Square Inch. | | | | | | | | | | Remarks. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | Neat. | | | | | 3 to 1. | | | | | |
| | | | | | No. 50. | No. 100. | No. 200. | Initial | Final. | Neat. | 3 to 1. | 24 Hours. | 7 Days. | 28 Days. | 3 Months. | 1 Year. | 24 Hours. | 7 Days. | 28 Days. | 3 Months. | 1 Year. | |
| | | | | | % | % | % | | | | | | | | | | | | | | | |
| Belleville | 11 | 0 | O.K. | 3.143 | 0.0 | 4.4 | 20.2 | 117 | 440 | 20.3 | 10.0 | 316 | 545 | 619 | 601 | 624 | 88 | 248 | 321 | 369 | 370 | Canadian. |
| Hercules | 2 | 0 | O.K. | 3.135 | 0.0 | 7.9 | 24.6 | 203 | 428 | 20.0 | 10.0 | 273 | 623 | 597 | .... | .... | 81 | 222 | 273 | .... | .... | " |
| Imperial | 16 | 0 | O.K. | 3.143 | 0.0 | 4.7 | 21.1 | 155 | 402 | 20.0 | 10.0 | 352 | 624 | 722 | 655 | 630 | 111 | 250 | 321 | 327 | 391 | " |
| Lehigh | 61 | 0 | O.K. | 3.145 | 0.0 | 4.5 | 19.6 | 150 | 396 | 20.5 | 10.0 | 317 | 569 | 654 | 613 | 700 | 98 | 293 | 389 | 394 | .... | " |
| Maple Leaf | 8 | 0 | O.K. | 3.153 | 0.0 | 3.7 | 18.2 | 121 | 351 | 20.7 | 10.0 | 317 | 534 | 684 | 670 | 739 | 79 | 189 | 218 | 275 | 351 | " |
| Monarch | 113 | 0 | O.K. | 3.149 | 0.0 | 4.9 | 20.0 | 157 | 395 | 20.2 | 10.0 | 327 | 539 | 609 | 630 | 735 | 109 | 269 | 352 | 379 | 421 | " |
| National | 112 | 0 | O.K. | 3.189 | 0.0 | 5.2 | 21.0 | 158 | 405 | 22.9 | 10.0 | 221 | 571 | 655 | 688 | 685 | 76 | 223 | 303 | 330 | 361 | " |
| Sampson | 17 | 0 | O.K. | 3.145 | 0.0 | 4.2 | 18.9 | 135 | 402 | 20.8 | 10.0 | 248 | 465 | 572 | 616 | 617 | 86 | 224 | 303 | 368 | 416 | " |
| Sangeen | 3 | 0 | O.K. | 3.160 | 0.0 | 4.8 | 19.1 | 135 | 365 | 20.0 | 10.0 | 319 | 703 | 735 | 617 | 754 | 65 | 229 | 295 | 331 | 415 | " |
| Star | 136 | 0 | O.K. | 3.151 | 0.0 | 6.7 | 23.4 | 154 | 408 | 20.4 | 10.0 | 282 | 503 | 589 | 607 | 675 | 95 | 245 | 338 | 316 | 399 | " |
| Sun | 8 | 0 | O.K. | 3.145 | 0.0 | 5.9 | 22.3 | 166 | 416 | 20.0 | 10.0 | 330 | 609 | 730 | .... | .... | 100 | 250 | 303 | .... | .... | " |
| Superior | 5 | 1 | O.K. | 3.122 | 0.0 | 2.0 | 13.7 | 136 | 403 | 21.0 | 10.0 | 291 | 486 | 659 | 579 | 704 | 87 | 274 | 372 | 500 | 516 | " |
| Vulcan | 29 | 0 | O.K. | 3.154 | 0.0 | 4.3 | 19.5 | 139 | 390 | 19.7 | 10.0 | 330 | 601 | 678 | 637 | .... | 120 | 302 | 379 | 452 | .... | " |
| | 521 | 1 | | | | | | | | | | | | | | | | | | | | |

Formerly it has been the practice to lay a 4-inch rough concrete foundation, and place on top of this a 2-inch surface or richer mixture, which was finally blocked off into rectangles 8 in. x 10 in. This surface is very brittle, and abrades rapidly under the action of traffic and becoming smooth does not afford sufficient foothold for horses. It is proposed, therefore, in the future to construct a monolithic type of pavement, leaving the surface rough.

## CONCRETE SIDEWALKS.

During the year a total of 446 concrete sidewalks were constructed, of which 392 were laid as Local Improvements, and the remaining 54 by private contract, under City supervision. The total mileage laid was 52.839 miles, which is a decrease of 2.262 miles when compared with the amount laid during the preceding year.

In connection with concrete sidewalks, 107,616 lineal feet of concrete curbing was constructed during the year.

With the addition of the walks laid this year, there is now a total length of concrete walks in the City of 397.424 miles.

## DAY LABOR WORKS.

During the year 1909, 392 concrete sidewalks were constructed, of which 84 were done by day labor. Of these 21 were ordered by Council, to be done by day labor, without the formality of calling for tenders; and the rest, 63 in number, were awarded to the City Engineer, who was the lowest tenderer; 49 other walks were awarded to the City Engineer, but at the request of the contractors who were the next lowest tenderers, these walks were transferred to them, to be constructed at the price bid by the City Engineer. In this way a substantial saving was effected for the property owners.

The walks constructed by day labor aggregated 7¼ miles, as compared with 7½ miles in 1908.

In estimating the gain or loss resulting from the work carried on by day labor, the lowest contractor's tender is taken as a basis of comparison on all works for which tenders were invited.

In this way, by referring to Table No. 8, it will be seen that there was an actual gain of $2,567.94, or an actual expenditure of $18,305.06,

The total cost of sidewalks done by day labor was $31,579.97.

The total cost of sidewalks done by order of Council was $10,700.07, and extras to the amount of $2,574.84, makes up the balance.

In addition to the foregoing concrete sidewalk work done by day labor, the City Engineer was awarded contracts by tender for the construction of 18 asphalt pavements; 2 asphalt block pavements; 1 vitrified block pavement; 2 bitulithic pavements; 3 gradings, and 16 concrete curbs. Added to this list are 2 asphalt pavements, 1 vitrified block, and 2 gradings, which were ordered by Council to be done by day labor, so as to avoid delays incident upon calling for tenders for the work.

It is also to be noted that the City Engineer's tender was lowest on 30 other pavements and 37 curbs, but these were transferred to the next lowest tenderer at his request, and at the Engineer's bid price.

On the work for which the City Engineer tendered, a net gain of $1,012.45 was effected, on an expenditure of $64,524.38.

The cost of the work done by order of Council was $16,649.14, and on the above works $761.45 was expended for extra work, making a total of $81,934.47 expended on Local Improvement pavement work for the year 1909.

A reference to Tables 9 and 12 will give details of pavements and curbs constructed by day labor. The cost of curbs constructed was $2,145.32.

During 1909, the work of improving the condition of the various track allowances in the business sections of the City was pushed forward with a good deal of success, and a reference to Table 11 will show the lengths of track reconstructed and the cost, of which the following is a summary, viz.:—3 miles of track reconstruction cost $126,746.10, or an average of $42,282 per mile of double track. Most of this work was granite set paving, and the foundation was 12 inches of concrete, 18 feet wide. (See cross section).

It will therefore be noticed that the total expenditure on all new work was $242,406.36.

In addition to the actual amount of money saved by doing these various works by day labor, the Department is justly entitled to credit for the saving effected by the transfer of contracts from the City Engineer to the various contractors, as this difference is a direct gain to

the ratepayers. On the 49 contracts for sidewalks, and 37 curb contracts, the saving amounted to $5,317.

On work done by day labor, the cost of inspection is saved, therefore it may be justly claimed as a saving to the ratepayers. This inspection, estimated at $3.50 per day for the actual time the work was in progress, amounted to $1,914.

If these items are all summed up, it will be seen that the total saving effected by doing work by day labor amounted to $10,812.

Owing to the keen competition existing during the year, the amount of local improvement work done by day labor was less than usual, and the saving effected was correspondingly small. However, the track allowance work brought up the total expenditure to an amount not before equalled in the history of the Department.

There were five foremen engaged on local improvement work, giving steady employment to about 110 men.

A few statistics may prove interesting and show to what extent the work of this Department has grown.

The total pay roll for the year was $332,385; of this amount 15 per cent. was spent for superintendence, office work and inspection, and the rent, or 85 per cent., for labor.

The total purchases for the year were as follows:—

| | | |
|---|---|---|
| 43,213 | tons stone cost | $59,520 |
| 34,455 | bbls. cement cost | 45,949 |
| 544,870 | granite setts cost | 38,512 |
| 434 | tons limestone dust cost | 2,425 |
| 19,278 | feet tile drain cost | 403 |
| 20,555 | square yards sand cost | 17,034 |
| 4,736 | square yards gravel cost | 5,714 |
| 370,700 | paving brick cost | 7,467 |
| 370,600 | paving blocks cost | 9,527 |
| 72,545 | asphalt blocks cost | 5,445 |
| 1,023 | tons asphalt cost | 24,117 |
| 1,087 | loads cinders cost | 662 |
| 397,300 | scoria blocks cost | 19,116 |
| | Hardware and miscellaneous | 2,680 |
| | Flux | 267 |
| | Paving pitch | 611 |
| 341,800 | feet B.M. lumber | 7,869 |
| | Making a total of | $247,324 |

## MAINTENANCE DEPARTMENT.

The following is a statement in brief of the work carried on by the Maintenance Branch of the Roadways Department, for the year 1909:—

### MACADAM ROADWAYS.

The undermentioned macadam roadways have been resurfaced at the costs stated below. These streets are now in a very creditable condition. In addition to these, there are, throughout the City, a number of macadam roadways in such condition that would not warrant resurfacing: these roads have been repaired from time to time as occasion demanded.

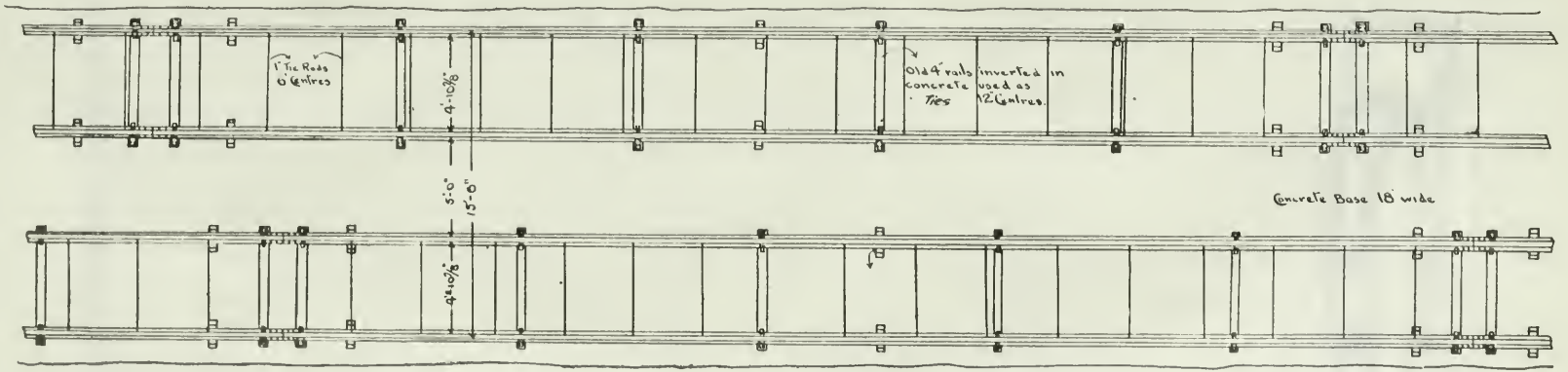
The cost of work done on roads that have been resurfaced is as follows:—

| | |
|---|---|
| Front Street, Cherry to Cypress | $873 88 |
| Homewood Avenue, Wellesley to Carlton | 824 59 |
| Sumach Street, Carlton to Winchester | 618 25 |
| Carlton Street, Sumach to Sackville | 513 10 |
| Eastern Avenue, Trinity to Don Esplanade | 637 12 |
| River Street, Gerrard to Spruce | 438 92 |
| Front Street, Trinity to Cherry | 491 45 |
| Cherry Street, Front to G. T. R. tracks | 954 06 |
| Kingston Road, Queen to City limit | 2,027 75 |
| Munro Street, Queen to Gerrard | 621 71 |
| Wellington Street, Bathurst to Stafford | 597 04 |
| Weston Road, St. Clair Avenue to N. City limit | 1,596 02 |
| High Park Avenue, Dundas to High Park | 2,083 43 |
| St. Clair Avenue, Keele to Dodds | 1,196 51 |
| Dundas Street, Clendennan to Runnymede | 2,097 14 |
| Queen Street, Greenwood to Woodbine | 6,343 10 |
| Queen's Park, East Crescent to Bloor | 2,896 84 |
| Gerrard Street, Jarvis to Yonge | 952 62 |
| Langley Avenue, Logan to Broadview | 768 85 |
| Exhibition Driveway, Dufferin to 160 feet east | 690 42 |
| Isabella Street, Jarvis to Yonge | 718 30 |
| Exhibition entrance | 1,112 74 |
| | $29,053 83 |

This resurfacing was done for the season of 1909 at an expenditure of $29,053.83, while the cost of a like service during 1908 was $10,919.88.

| Street. | From. | To. | Contractor. | Asphalt Used. | Bitumen in Surface Mixture. Maximum | Bitumen in Surface Mixture. Minimum | Penetration of Asphaltic Cement (Dow & Mackie.) | Temperature of Surface Mixture. Max. °Fah. | Temperature of Surface Mixture. Min. °Fah. | Refined Asphalt. Physical Examination. Specific Gravity. | Refined Asphalt. Physical Examination. Flowing Point. °Fah. | Refined Asphalt. Chemical Analysis. Bitumen soluble in Carbon Bisulphide. | Organic matter insoluble. | Mineral matter (Ash.) | Bitumen soluble in 88° Naphtha. | Bitumen soluble in Carbon Tetrachloride. | Fixed Carbon. | Sand Grading. On No. 10 Sieve. | Pass No. 10 Sieve. | Pass No. 20 Sieve. | Pass No. 30 Sieve. | Pass No. 40 Sieve. | Pass No. 50 Sieve. | Pass No. 80 Sieve. | Pass No. 100 Sieve. | Pass No. 200 Sieve. | Limestone Dust Grading. On No. 50 Sieve. | Pass No. 50 Sieve. | Pass No. 80 Sieve. | Pass No. 100 Sieve. | Pass No. 200 Sieve. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | % | % | | | | | | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
| Antler St | Perth Ave. | Franklin Ave. | Barber Asphalt Paving Co. | Bermudez | 10.09 | | 38 | 345 | 310 | 1.077 | 203 | 94.42 | 2.63 | 2.95 | 62.62 | 94.32 | 14.96 | 1.0 | 7.0 | 4.5 | 5.0 | 10.5 | 22.5 | 24.0 | 19.0 | 6.5 | 0.0 | 0.0 | 2.0 | 12.0 | 86.0 |
| Barton Ave. | Brunswick Ave. | Howland Ave. | City Engineer | Texaco | 10.20 | | 28 | 375 | 280 | .971 | 221 | 99.49 | .39 | .12 | 69.79 | 99.59 | 10.95 | 0.0 | 1.0 | 1.5 | 6.0 | 10.0 | 25.0 | 24.5 | 21.5 | 10.5 | 0.0 | 0.0 | 4.0 | 8.0 | 88.0 |
| Beatty Ave | King St. | Queen St. | Barber Asphalt Paving Co. | Bermudez | 11 18 | 10.57 | 39 | 340 | 270 | 1.077 | 203 | 94.42 | 2.63 | 2.95 | 62.62 | 94.32 | 14 96 | 0.5 | 1.5 | 4.0 | 6.5 | 14.0 | 23.5 | 24.0 | 16 0 | 10.0 | 0.0 | 0.0 | 4.0 | 10 0 | 86.0 |
| Beaumont Road | Glen Road | 600 feet east. | Construction & Paving Co. | Texas | | | | | | 1.038 | 266 | 99.02 | .46 | .52 | 67.12 | 99.20 | 19.21 | | | | | | | | | | | | | | |
| | | | | California | 9.18 | 8.85 | 37 | 320 | 260 | 1.035 | 185 | 99.34 | .24 | .42 | 86 04 | 99.27 | 12.44 | 0.0 | 0.0 | 0.5 | 3.5 | 8.0 | 20.0 | 28.0 | 26.0 | 14.0 | 0.0 | 2.0 | 12.0 | 18.0 | 68 0 |
| Berkeley St | King St. | Duke St. | Godson Contracting Co. | Texaco | | | | | | .992 | 221 | 99.03 | .58 | .39 | 70.30 | 99.03 | 11.92 | | | | | | | | | | | | | | |
| | | | | California | 10.14 | | 38 | | | 1.050 | 176 | 99.51 | .23 | .26 | 76.01 | 99.32 | 15.19 | 0.5 | 2.0 | 5.0 | 8 0 | 12.5 | 24.5 | 26 5 | 15.0 | 7.5 | 0.0 | 0.0 | 4.0 | 14 0 | 82.0 |
| Berkeley St | Queen St. | Wilton Ave. | Barber Asphalt Paving Co | Trinidad Pitch Lake | 11.23 | 10.00 | 66 | 388 | 270 | 1.379 | 239 | 59.10 | 4.62 | 36.88 | 54.91 | | 8 60 | 3.0 | 5.0 | 6.5 | 9.0 | 14.0 | 20.0 | 22.5 | 14.0 | 6.0 | 0.0 | 0.0 | 4.0 | 12 0 | 84.0 |
| Bond St | Queen St. | Wilton Ave. | Godson Contracting Co. | Texas | 10.52 | 10.04 | 42 | 345 | 265 | 1.019 | 289 | 99.27 | .53 | .20 | 69.29 | 99.13 | 19.28 | 0.0 | 0.0 | 1.0 | 4.0 | 8.0 | 25.5 | 24.5 | 24.0 | 13.0 | 0.0 | 0.0 | 4.0 | 10.0 | 86 0 |
| Booth St | Queen St. | Eastern Ave. | Barber Asphalt Paving Co. | Bermudez | 11.68 | 11.58 | 32 | 315 | 290 | 1.084 | 198 | 94.60 | 1.89 | 3.51 | 67.69 | 92.67 | 14.44 | 0.0 | 1.5 | 2.0 | 6.0 | 11.5 | 24.0 | 24.5 | 19.5 | 11.0 | 0.0 | 0.0 | 6.0 | 12.0 | 82.0 |
| Borden St | Ulster St | Bloor St. | City Engineer | Texaco | 11.42 | 10.50 | 28 | 400 | 260 | .995 | 226 | 99.39 | .22 | .39 | 68.39 | 99.44 | 10.94 | 0.0 | 0.0 | 1.0 | 4.0 | 8.5 | 22.5 | 24.0 | 25.5 | 14.5 | 0.0 | 0.0 | 4.0 | 10.0 | 86.0 |
| Boustead Ave | 650 ft. w. of Roncesvalles Ave. | Indian Road. | Construction & Paving Co. | Texas | | | | | | 1.021 | 265 | 99.34 | .19 | .47 | 65.36 | 99.40 | 18.93 | | | | | | | | | | | | | | |
| | | | | California | 8.22 | | 51 | 310 | 260 | 1.035 | 185 | 99.34 | .24 | .42 | 86.04 | 99.27 | 12.44 | 0.0 | 1.0 | 2.0 | 6.0 | 24.5 | 25.5 | 18.5 | 14.0 | 8.5 | 0.0 | 0.0 | 4.0 | 8.0 | 88.0 |
| Broadway Place | 198 ft. w. of Spadina Ave. | West end. | City Engineer | Texaco | 9 55 | | 28 | 350 | 275 | .979 | 234 | 99.30 | .26 | .44 | 70.83 | 99.34 | 11.48 | 0.0 | 0 5 | 1.0 | 4.0 | 9 5 | 21.0 | 27.0 | 25.5 | 11.5 | 0.0 | 0.0 | 6.0 | 16.0 | 78.0 |
| Broadway Place | Spadina Ave | 198 feet west. | " | " | 9.55 | | 28 | 350 | 275 | .979 | 234 | 99.30 | .26 | .44 | 70.83 | 99.34 | 11.48 | 0.0 | 0.5 | 1.0 | 4.0 | 9.5 | 21 0 | 27.0 | 25.5 | 11.5 | 0 0 | 0.0 | 6.0 | 16.0 | 78.0 |
| Brock Ave | Bloor St | 1,000 feet south. | " | " | 10.59 | 9.93 | 28 | 460 | 270 | .980 | 221 | 99.13 | .57 | .30 | 70.37 | 99.41 | 11.55 | 0.0 | 1.0 | 2.0 | 5.0 | 12.5 | 26.5 | 24.0 | 19 0 | 10.0 | 0.0 | 0.0 | 4.0 | 8.0 | 88.0 |
| Brock Ave | Middleton St | G.T.R. tracks | Barber Asphalt Paving Co. | Bermudez | 10.48 | | 39 | 330 | 275 | 1.077 | 203 | 94.42 | 2.63 | 2.95 | 62.62 | 94.32 | 14.96 | 0 5 | 1 5 | 4.0 | 6.5 | 14.0 | 23.5 | 24 0 | 16.0 | 10 0 | 0.0 | 0.0 | 4.0 | 10.0 | 86.0 |
| Britain St | Sherbourne St. | George St. | City Engineer | Texaco | 10.66 | | 28 | 425 | 280 | .952 | 223 | 99.32 | .41 | .27 | 68.82 | 99.40 | 11.34 | 0.0 | 0.0 | 1.0 | 4.0 | 10.5 | 26.0 | 24.5 | 21.5 | 12.5 | 2.0 | 4.0 | 8.0 | 10.0 | 76.0 |
| Cier Howell St | McCaul St. | Simcoe St. | Barber Asphalt Paving Co. | Bermudez | 10.08 | 9.29 | 49 | 315 | 270 | 1.079 | 225 | 93.56 | 3.03 | 3.41 | 69.89 | 93.82 | 14.72 | 1.0 | 2.0 | 2.0 | 5.0 | 10.0 | 18.0 | 21.5 | 26.5 | 14.0 | 0.0 | 0.0 | 6.0 | 22.0 | 72.0 |
| Cier Howell St | Simcoe St. | University Ave. | " | " | 10.08 | 9.29 | 49 | 315 | 270 | 1.079 | 225 | 93.56 | 3.03 | 3.41 | 69.89 | 93.82 | 14.72 | 1.0 | 2.0 | 2.0 | 5.0 | 10.0 | 18.0 | 21.5 | 26.5 | 14.0 | 0.0 | 0.0 | 6.0 | 22.0 | 72.0 |
| Campbell Ave | Wallace Ave. | Antler St. | " | " | 11.68 | 9 38 | 48 | 320 | 260 | 1.079 | 194 | 95.22 | 2.39 | 2.39 | 67.98 | 95.60 | 14.52 | 1.0 | 1.0 | 3.5 | 5.0 | 10.5 | 24.5 | 24.0 | 19.0 | 11.5 | 0.0 | 0.0 | 2.0 | 6.0 | 92.0 |
| Carlaw Ave | Eastern Ave. | 1,034 feet south. | " | " | 11.23 | 11.07 | 33 | 315 | 270 | 1.084 | 198 | 94.60 | 1.89 | 3.51 | 67.69 | 92.67 | 14.44 | 0.0 | 1 5 | 2.0 | 6.0 | 11.5 | 24.0 | 24.5 | 19.5 | 11.0 | 0.0 | 0.0 | 6.0 | 12.0 | 82.0 |
| Carroll St | Queen St. | Thompson St. | " | " | 10.05 | | 51 | 310 | 290 | 1.079 | 194 | 95.22 | 2.39 | 2.39 | 67.98 | 95.60 | 14.52 | 1.5 | 2.0 | 2.5 | 5.0 | 11.0 | 22 5 | 25.5 | 20.0 | 10.0 | 0.0 | 0.0 | 4.0 | 8.0 | 88.0 |
| Cecil St | Henry St. | Beverley St. | Godson Contracting Co. | Texas | 9.55 | | 44 | 412 | 281 | 1.024 | 228 | 95.22 | .39 | .39 | 66.88 | 99.28 | 17.57 | 0.5 | 2.5 | 2.0 | 5.0 | 10.5 | 22.5 | 25.0 | 21.0 | 11.0 | 0.0 | 0.0 | 2.0 | 8.0 | 90.0 |
| Clarence Square | Spadina Ave. | Spadina Ave | " | Texaco | | | | | | .992 | 221 | 99.03 | .58 | .39 | 70.30 | 99.03 | 11.92 | | | | | | | | | | | | | | |
| | | | | California | 10.38 | 10.13 | 36 | 338 | 259 | 1.050 | 176 | 99.51 | .23 | .26 | 76.01 | 99.32 | 15.19 | 0.0 | 1.5 | 2.5 | 7.0 | 11.0 | 22.5 | 24.5 | 21.0 | 10.0 | 0.0 | 0.0 | 4.0 | 20.0 | 76.0 |
| Clifford St | Strachan Ave | Stanley Ave. | Construction & Paving Co. | Texas | | | | | | 1.021 | 265 | 99.34 | .19 | .47 | 65.36 | 99.40 | 18.93 | | | | | | | | | | | | | | |
| | | | | California | 8.26 | | 62 | 320 | 250 | 1.035 | 185 | 99.34 | .24 | .42 | 86.04 | 99.27 | 12 44 | 0.0 | 4.0 | 3 5 | 9 0 | 17 5 | 23.0 | 24.0 | 12.0 | 7.0 | 0.0 | 0.0 | 4.0 | 8.0 | 88 0 |
| Clinton St | Yarmouth Road | Dupont St. | Barber Asphalt Paving Co. | Bermudez | 11.11 | 10.66 | 38 | 355 | 310 | 1.077 | 203 | 94.42 | 2.63 | 2.95 | 62.62 | 94.32 | 14.96 | 1 0 | 7 0 | 4 5 | 5.0 | 10.5 | 22.5 | 24.0 | 19 0 | 6.5 | 0.0 | 0.0 | 2 0 | 12 0 | 86.0 |
| Dagmar Ave | Jones Ave. | 613 feet west | " | " | 10.38 | 10.82 | 38 | 310 | 270 | 1.079 | 225 | 93.56 | 3.03 | 3.41 | 69.89 | 93.82 | 14.72 | 0.0 | 0.5 | 1.5 | 6.0 | 12.0 | 20.0 | 26.5 | 13.0 | 10.5 | 0.0 | 0.0 | 2 0 | 8.0 | 90 0 |
| Dalhousie St | Gould St | Gerrard St. | City Engineer | Texaco | 10.72 | | 28 | 450 | 320 | .993 | 228 | 99.46 | .32 | .22 | 69.10 | 99.50 | 12.47 | 0.0 | 0.5 | 5.0 | 10.0 | 24.0 | 25.5 | 22.5 | 12.5 | 0.0 | 0.0 | 4.0 | 16.0 | 80.0 |
| Dovercourt Road | Queen St. | Dundas St. | Godson Contracting Co. | Texas | 10.35 | 9.30 | 30 | 360 | 265 | 1.019 | 289 | 99.27 | .53 | .20 | 69.29 | 99.13 | 19.28 | 0.0 | 1.5 | 2.0 | 6.0 | 14.0 | 22.5 | 24.0 | 19.0 | 11.0 | 0.0 | 0.0 | 4.0 | 6.0 | 90.0 |
| Dovercourt Road | Dundas St. | Churchill Ave. | " | " | 10.21 | 9.85 | 50 | 335 | 265 | 1.024 | 228 | 99.22 | .39 | .39 | 66.88 | 99.28 | 17.57 | 0.0 | 1.0 | 3.5 | 5.5 | 11.0 | 22.5 | 24.0 | 21.0 | 11.5 | 0.0 | 0.0 | 2.0 | 6.0 | 92.0 |
| Dunn Ave | Queen St | G.T.R. tracks. | City Engineer | Texaco | 10.81 | 9.79 | 28 | 415 | 240 | .976 | 221 | 99.40 | .15 | .45 | 72.36 | 99.42 | 11.13 | 0.0 | 1.0 | 2.0 | 5.5 | 10.5 | 24.0 | 22.0 | 25.0 | 10.0 | 0.0 | 0.0 | 4.0 | 12.0 | 84.0 |
| Emerson Ave | Wallace Ave | Lappin Ave. | Construction & Paving Co. | Texas | | | | | | 1.038 | 266 | 99.02 | .46 | .52 | 67.12 | 99.20 | 19.21 | | | | | | | | | | | | | | |
| | | | | California | 9.07 | | 37 | 325 | 280 | 1.035 | 185 | 99.34 | .24 | .42 | 86.04 | 99.27 | 12.44 | 0.0 | 1.0 | 3.0 | 5.0 | 10.0 | 23.5 | 25.5 | 22.5 | 9 5 | 0.0 | 0.0 | 8.0 | 12.0 | 80.0 |
| Fermanagh Ave | Sorauren Ave | Roncesvalles Ave. | Godson Contracting Co. | Texas | 9.55 | 8.69 | 31 | 336 | 236 | 1.019 | 289 | 99.27 | .53 | .20 | 69.29 | 99.13 | 19.28 | 0.0 | 0.5 | 1.5 | 6.0 | 11.5 | 24.0 | 25.0 | 20.0 | 11.5 | 0.0 | 0.0 | 4.0 | 8.0 | 88.0 |
| Fern Ave | Roncesvalles Ave. | Sunnyside Ave. | Construction & Paving Co | " | | | | | | 1.024 | 275 | 99.56 | .32 | .12 | 62.78 | 99.49 | 17.52 | | | | | | | | | | | | | | |
| | | | | California | 10.50 | | 70 | 300 | 250 | 1.035 | 185 | 99.34 | .24 | .42 | 86.04 | 99.27 | 12 44 | 0.0 | 4.0 | 3.0 | 6.0 | 10.5 | 22.5 | 24 0 | 19 5 | 10.5 | 0.0 | 0.0 | 2 0 | 6 0 | 92.0 |
| Foxbar Road | Avenue Road | St. Clair Ave | " | Texas | | | | | | 1.038 | 266 | 99.02 | .46 | .52 | 67.12 | 99.20 | 19.21 | | | | | | | | | | | | | | |
| | | | | California | 9.87 | 8.77 | 55 | 320 | 265 | 1.035 | 185 | 99.34 | .24 | .42 | 86.04 | 99.27 | 12.44 | 0.0 | 0.0 | 1.0 | 5.0 | 7.5 | 24.0 | 30.5 | 20 0 | 12.0 | 0.0 | 0.0 | 2.0 | 8.0 | 90 0 |
| Frizzell Ave | 18 ft. w. of e.s. Pape | Kiswick St. | Barber Asphalt Paving Co. | Bermudez | 10.30 | | 33 | 325 | 280 | 1.084 | 198 | 94.60 | 1.89 | 3.51 | 67.69 | 92.67 | 14.44 | 1.5 | 2.0 | 2.5 | 7.0 | 12.0 | 26.5 | 21.5 | 18.0 | 9.0 | 0.0 | 0.0 | 4.0 | 8.0 | 88.0 |
| Galley Ave | Roncesvalles Ave. | Sunnyside Ave. | Construction & Paving Co. | Texas | | | | | | 1.021 | 265 | 99.34 | .19 | .47 | 65.36 | 99.40 | 18.93 | | | | | | | | | | | | | | |
| | | | | California | 8.90 | 8.04 | 63 | 320 | 260 | 1.035 | 185 | 99.34 | .24 | .42 | 86 04 | 99.27 | 12 44 | 2 5 | 9.0 | 6.0 | 14.5 | 24 5 | 16.0 | 12.5 | 9.0 | 6.0 | 0.0 | 0.0 | 4 0 | 10.0 | 86.0 |
| Garden Ave | Roncesvalles Ave. | Sunnyside Ave. | " | Texas | | | | | | 1.021 | 265 | 99.34 | .19 | .47 | 65.36 | 99.40 | 18.93 | | | | | | | | | | | | | | |
| | | | | California | 9.07 | | 54 | 300 | 265 | 1.035 | 185 | 99.34 | .24 | .42 | 86.04 | 99.27 | 12.44 | 0.0 | 0.5 | 1 5 | 5.0 | 24.5 | 24.0 | 20.5 | 15.0 | 9.0 | 0.0 | 0.0 | 2 0 | 6 0 | 92 0 |
| Glen Road | Bridge | Highlands Ave. | City Engineer | Texaco | 10.58 | | 35 | 380 | 310 | 979 | 216 | 99.41 | .30 | .29 | 70.38 | 99.32 | 11.96 | 0.0 | 0.5 | 1.0 | 5 0 | 10.0 | 24.5 | 25 0 | 22.0 | 12.0 | 0.0 | 2.0 | 4.0 | 8.0 | 86.0 |
| Harbord St | Bathurst St | Spadina Ave. | Construction & Paving Co. | Texas | | | | | | 1.038 | 266 | 99.02 | .46 | .52 | 67.12 | 99.20 | 19.21 | | | | | | | | | | | | | | |
| | | | | California | 9.96 | 9.29 | 60 | 330 | 240 | 1.035 | 185 | 99.34 | .24 | .42 | 86.04 | 99.27 | 12.44 | 0.0 | 2 0 | 3 0 | 6.0 | 17.0 | 24 5 | 25.5 | 14 0 | 8.0 | 0.0 | 0.0 | 2.0 | 10.0 | 88 0 |
| Herrick St | Bathurst St. | Euclid Ave. | Godson Contracting Co. | Texas | 10.76 | 10.59 | 35 | 327 | 243 | 1.019 | 289 | 99.27 | .53 | .20 | 69.29 | 99.13 | 19.28 | 0.0 | 0.5 | 1.5 | 6.0 | 10.0 | 24.5 | 25.5 | 22.0 | 10.0 | 0.0 | 0.0 | 4.0 | 12.0 | 84.0 |
| High Park Blvd | Roncesvalles Ave. | Sunnyside Ave. | Barber Asphalt Paving Co. | Bermudez | 11.00 | 9.68 | 61 | 325 | 285 | 1.084 | 198 | 94.60 | 1.89 | 3.51 | 67.69 | 92.67 | 14.44 | 1.0 | 2.0 | 2.5 | 5.5 | 15.0 | 24 0 | 25.0 | 14.0 | 9.0 | 0.0 | 0.0 | 4.0 | 20.0 | 76 0 |
| Jerome St | Dundas St. | 500 feet west | Godson Contracting Co. | Texas | 9.91 | | 33 | 356 | 252 | 1.019 | 289 | 99.27 | .53 | .20 | 69.29 | 99.13 | 19.28 | 0.0 | 2.0 | 2.5 | 6.0 | 10.5 | 22 5 | 24.0 | 21.0 | 11.5 | 0.0 | 0.0 | 4.0 | 8.0 | 88.0 |
| Jones Ave | Gerrard St | G.T.R. tracks. | " | Texas | | | | | | .992 | 221 | 99.03 | .58 | .39 | 70.30 | 99.03 | 11.92 | | | | | | | | | | | | | | |
| | | | | California | 11.08 | 10.01 | 37 | 338 | 226 | 1.050 | 176 | 99.51 | .23 | .26 | 76.01 | 99.32 | 15.19 | 5.0 | 2.0 | 3.0 | 5.0 | 8.5 | 16.5 | 23.5 | 23.0 | 13.5 | 0.0 | 0.0 | 6.0 | 26 0 | 68.0 |
| Kendal Ave | Wells St | Castle Ave. | " | " | 8.81 | | 30 | 290 | 236 | 1.050 | 176 | 99.51 | .23 | .26 | 76.01 | 99.32 | 15.19 | 0.0 | 1.0 | 3.5 | 5 0 | 11.0 | 24.5 | 27.0 | 18.0 | 10 0 | 0.0 | 0.0 | 4 0 | 18 0 | 78.0 |
| Lansdowne Ave | Queen St | Marion St. | Construction & Paving Co. | Texas | | | | | | 1.021 | 265 | 99.34 | .19 | .47 | 65.36 | 99.40 | 18.93 | | | | | | | | | | | | | | |
| | | | | California | 8.55 | 8.00 | 63 | 300 | 265 | 1.035 | 185 | 99.34 | .24 | .42 | 86.04 | 99.27 | 12.44 | 2.5 | 9.0 | 6.0 | 1.45 | 24.5 | 16.0 | 12.5 | 9.0 | 6.0 | 0.0 | 0.0 | 4.0 | 10 0 | 86.0 |
| Lansdowne Ave | Marion St. | Rideau Ave. | " | Texas | | | | | | 1.024 | 275 | 99.56 | .32 | .12 | 62.78 | 99.49 | 17.52 | | | | | | | | | | | | | | |
| | | | | California | 10 40 | 8.20 | 85 | 325 | 245 | 1.035 | 185 | 99.34 | .24 | .42 | 86.04 | 99.27 | 12.44 | 0 0 | 2.0 | 2.5 | 7.5 | 14 0 | 24 0 | 24 5 | 16.0 | 9.5 | 0.0 | 0.0 | 4.0 | 8 0 | 88 0 |
| Lennox St | Bathurst St. | Manning Ave | Barber Asphalt Paving Co. | Bermudez | 10 46 | 10.14 | 72 | 325 | 270 | 1.079 | 194 | 95.22 | 2.39 | 2.39 | 67.98 | 95 60 | 14.52 | 0.5 | 1.5 | 3.0 | 5.0 | 12 5 | 22 5 | 25.0 | 20 0 | 10.0 | 0.0 | 0.0 | 4.0 | 8.0 | 88 0 |
| | | 650 feet west | Godson Contracting Co. | Texas | 10.38 | 9.91 | 31 | 324 | 265 | 1.015 | 289 | 99.27 | .53 | .20 | 69.29 | 99.13 | 19.28 | 0.0 | 2.0 | 2.0 | 5.0 | 12.0 | 24.0 | 22.5 | 19.0 | 11.5 | 0.0 | 0.0 | 2.0 | 14.0 | 84.0 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Dalhousie St | Gould St | Gerrard St | City Engineer | Texaco | 10.72 | | 28 | 450 | 320 | .993 | 228 | 99 46 | .32 | .22 | 69 10 | 99.50 | 12.47 | 0.0 | 0.0 | 0.5 | 5.0 | 10.0 | 24.0 | 25.5 | 22.5 | 12.5 | 0.0 | 0.0 | 0.0 | 2.0 | 8.0 | 80.0 |
| Davercourt Road | Queen St | Dundas St | Godson Contracting Co. | Texas | 10 35 | 9.30 | 30 | 360 | 265 | 1.019 | 289 | 99 27 | .53 | .20 | 69 29 | 99.13 | 19.28 | 0.0 | 1.5 | 2.0 | 6.0 | 14.0 | 22.5 | 24.0 | 19.0 | 11.0 | 0.0 | 0.0 | 4.0 | 16.0 | 80.0 |
| Davercourt Road | Dundas St | Churchill Ave | " | " | 10.21 | 9.85 | 50 | 335 | 265 | 1.024 | 228 | 99.22 | .39 | .39 | 66.88 | 99.28 | 17.57 | 0.0 | 1.0 | 3.5 | 5.5 | 11.0 | 22.5 | 24.0 | 21.0 | 11.5 | 0.0 | 0.0 | 2.0 | 6.0 | 92.0 |
| Dunn Ave | Queen St | G.T.R. tracks | City Engineer | Texaco | 10.81 | 9.79 | 28 | 415 | 240 | .976 | 221 | 99.40 | .15 | .45 | 72.36 | 99.42 | 11.43 | 0.0 | 1.0 | 2.0 | 5.5 | 10.5 | 24.0 | 22.0 | 25.0 | 10.0 | 0.0 | 0.0 | 4.0 | 12.0 | 84.0 |
| Emerson Ave | Wallace Ave | Lappin Ave | Construction & Paving Co | Texas | | | | | | 1.038 | 266 | 99.02 | .46 | .52 | 67.12 | 99.20 | 19.21 | | | | | | | | | | | | | | | | | | |
| | | | | California | 9.07 | | 37 | 325 | 280 | 1.035 | 185 | 99.34 | .24 | .42 | 86.04 | 99.27 | 12.44 | 0.0 | 1.0 | 3.0 | 5.0 | 10.0 | 23.5 | 25.5 | 22.5 | 9.5 | 0.0 | 0.0 | 8.0 | 12.0 | 80.0 |
| Fermanagh Ave | Soraren Ave | Roncesvalles Ave | Godson Contracting Co | Texas | 9.55 | 8.69 | 31 | 336 | 236 | 1.019 | 289 | 99.27 | .53 | .20 | 69.29 | 99.13 | 19.28 | 0.0 | 0.5 | 1.5 | 6.0 | 11.5 | 24.0 | 25.0 | 20.0 | 11.5 | 0.0 | 0.0 | 4.0 | 8.0 | 88.0 |
| Fern Ave | Roncesvalles Ave | Sunnyside Ave | Construction & Paving Co | " | | | | | | 1.024 | 275 | 99.56 | .32 | .12 | 62.78 | 99.43 | 17.52 | | | | | | | | | | | | | | | | | | |
| | | | | California | 10.50 | | 70 | 300 | 250 | 1.035 | 185 | 99.34 | .24 | .42 | 86.04 | 99.27 | 12.44 | 0.0 | 4.0 | 3.0 | 6.0 | 10.5 | 22.5 | 24.0 | 19.5 | 10.5 | 0.0 | 0.0 | 2.0 | 6.0 | 92.0 |
| Foxbar Road | Avenue Road | St. Clair Ave | " " " | Texas | | | | | | 1.038 | 266 | 99.02 | .46 | .52 | 67.12 | 99.20 | 19.21 | | | | | | | | | | | | | | | | | | |
| | | | | California | 9.87 | 8.77 | 55 | 320 | 265 | 1.035 | 185 | 99.34 | .24 | .42 | 86.04 | 99.27 | 12.44 | 0.0 | 0.0 | 1.0 | 5.0 | 7.5 | 24.0 | 30.5 | 20.0 | 12.0 | 0.0 | 0.0 | 2.0 | 8.0 | 90.0 |
| Frizzell Ave | 18 ft. w. of e.s. Pape | Kiswick St | Barber Asphalt Paving Co | Bermudez | 10.30 | | 33 | 325 | 280 | 1.084 | 198 | 94.60 | 1.89 | 3.51 | 67.69 | 92.67 | 14.44 | 1.5 | 2.0 | 2.5 | 7.0 | 12.0 | 26.5 | 21.5 | 18.0 | 9.0 | 0.0 | 0.0 | 4.0 | 8.0 | 88.0 |
| Galley Ave | Roncesvalles Ave | Sunnyside Ave | Construction & Paving Co | Texas | | | | | | 1.021 | 265 | 99.34 | .19 | .47 | 65.36 | 99.40 | 18.93 | | | | | | | | | | | | | | | | | | |
| | | | | California | 8.90 | 8.04 | 63 | 320 | 260 | 1.035 | 185 | 99.34 | .24 | .42 | 86.04 | 99.27 | 12.44 | 2.5 | 9.0 | 6.0 | 14.5 | 24.5 | 16.0 | 12.5 | 9.0 | 6.0 | 0.0 | 0.0 | 4.0 | 10.0 | 86.0 |
| Garden Ave | Roncesvalles Ave | Sunnyside Ave | " " " | Texas | | | | | | 1.021 | 265 | 99.34 | .19 | .47 | 65.36 | 99.40 | 18.93 | | | | | | | | | | | | | | | | | | |
| | | | | California | 9.07 | | 54 | 300 | 265 | 1.035 | 185 | 99.34 | .24 | .42 | 86.04 | 99.27 | 12.44 | 0.0 | 0.5 | 1.5 | 5.0 | 24.5 | 24.0 | 20.5 | 15.0 | 9.0 | 0.0 | 0.0 | 2.0 | 6.0 | 92.0 |
| Glen Road | Bridge | Highlands Ave | City Engineer | Texaco | 10.58 | | 35 | 380 | 310 | .979 | 216 | 99.41 | .30 | .29 | 70.38 | 99.32 | 11.96 | 0.0 | 0.5 | 1.0 | 5.0 | 10.0 | 24.5 | 25.0 | 22.0 | 12.0 | 0.0 | 0.0 | 2.0 | 4.0 | 8.0 | 86.0 |
| Harbord St | Bathurst St | Spadina Ave | Construction & Paving Co | Texas | | | | | | 1.038 | 266 | 99.02 | .46 | .52 | 67.12 | 99.20 | 19.21 | | | | | | | | | | | | | | | | | | |
| | | | | California | 9.96 | 9.29 | 60 | 330 | 240 | 1.035 | 185 | 99.34 | .24 | .42 | 86.04 | 99.27 | 12.44 | 0.0 | 2.0 | 3.0 | 6.0 | 17.0 | 24.5 | 25.5 | 14.0 | 8.0 | 0.0 | 0.0 | 2.0 | 10.0 | 88.0 |
| Herrick St | Bathurst St | Euclid Ave | Godson Contracting Co | Texas | 10.76 | 10.59 | 35 | 327 | 243 | 1.019 | 289 | 99.27 | .53 | .20 | 69.29 | 99.13 | 19.28 | 0.0 | 0.5 | 1.5 | 6.0 | 10.0 | 24.5 | 25.5 | 23.0 | 10.0 | 0.0 | 0.0 | 4.0 | 12.0 | 84.0 |
| High Park Blvd | Roncesvalles Ave | Sunnyside Ave | Barber Asphalt Paving Co | Bermudez | 11.00 | 9.68 | 61 | 325 | 285 | 1.084 | 198 | 94 60 | 1.89 | 3 51 | 67.69 | 92.67 | 14 44 | 1.5 | 2.0 | 2.5 | 5.5 | 15 0 | 24.0 | 25.0 | 16.0 | 9.0 | 0.0 | 0.0 | 4.0 | 20.0 | 76.0 |
| Jerome St | Dundas St | 500 feet west | Godson Contracting Co | Texas | 9.91 | | 33 | 356 | 252 | 1.019 | 289 | 99.27 | .53 | .20 | 69.29 | 99.13 | 19 28 | 0 0 | 2.0 | 2.5 | 6.0 | 10.5 | 22 5 | 24.0 | 21.0 | 11.5 | 0.0 | 0.0 | 4.0 | 8.0 | 88.0 |
| Jones Ave | Gerrard St | G.T.R. tracks | " " " | Texaco | | | | | | .992 | 221 | 99.03 | .58 | .39 | 70 30 | 99.03 | 11 92 | | | | | | | | | | | | | | | | | | |
| | | | | California | 11.08 | 10.01 | 37 | 338 | 226 | 1.050 | 176 | 99.51 | .23 | .26 | 76.01 | 99.32 | 15.19 | 5.0 | 2.0 | 3.0 | 5.0 | 8.5 | 16.5 | 23.5 | 23.0 | 13.5 | 0.0 | 0.0 | 6.0 | 26.0 | 68.0 |
| Kendal Ave | Wells St | Castle Ave | " | " | 8.81 | | 30 | 290 | 236 | 1.050 | 176 | 99.51 | .23 | .36 | 76.01 | 99.32 | 15.19 | 0.0 | 1.0 | 3.5 | 5.0 | 11.0 | 24.5 | 27.0 | 18.0 | 10.0 | 0.0 | 0.0 | 4.0 | 18.0 | 78.0 |
| Lansdowne Ave | Queen St | Marion St | Construction & Paving Co | Texas | | | | | | 1.021 | 265 | 99.34 | .19 | .47 | 65.36 | 99.40 | 18.93 | | | | | | | | | | | | | | | | | | |
| | | | | California | 8.55 | 8.00 | 63 | 300 | 265 | 1.035 | 185 | 99.34 | .24 | .42 | 86.04 | 99.27 | 12.44 | 2.5 | 9.0 | 6.0 | 1.45 | 24.5 | 16.0 | 12.5 | 9.0 | 6.0 | 0.0 | 0.0 | 4.0 | 10.0 | 86.0 |
| Lansdowne Ave | Marion St | Rideau Ave | " " " | Texas | | | | | | 1.024 | 275 | 99.56 | .32 | .12 | 62.78 | 99.49 | 17.52 | | | | | | | | | | | | | | | | | | |
| | | | | California | 10 40 | 8.50 | 85 | 325 | 245 | 1.035 | 185 | 99.34 | .24 | .42 | 86.04 | 99.27 | 12.44 | 0.0 | 2.0 | 2.5 | 7.5 | 14 0 | 24 0 | 24 5 | 16 0 | 9 5 | 0.0 | 0.0 | 4.0 | 8 0 | 88.0 |
| Lennox St | Bathurst St | Manning Ave | Barber Asphalt Paving Co | Bermudez | 10 46 | 10.14 | 72 | 325 | 270 | 1.079 | 194 | 95.22 | 2.39 | 2.39 | 67.98 | 95.60 | 14 52 | 0.5 | 1.5 | 3.0 | 5.0 | 12 5 | 22 5 | 25.0 | 20 0 | 10.0 | 0.0 | 0.0 | 4.0 | 8.0 | 88.0 |
| Lowther Ave | Avenue Road | 650 feet west | Godson Contracting Co | Texas | 10.38 | 9.21 | 31 | 334 | 265 | 1.015 | 289 | 99.27 | .53 | .20 | 69.29 | 99.13 | 19.28 | 0.0 | 2.0 | 2.0 | 7.0 | 12.0 | 24.0 | 22.5 | 19.0 | 11 5 | 0.0 | 0.0 | 2.0 | 4.0 | 84.0 |
| Lucas St | Soraren Ave | Roncesvalles Ave | " " " | " | 11.08 | 9.49 | 32 | 340 | 240 | 1.019 | 289 | 99.27 | .53 | .20 | 69.29 | 99.13 | 19.28 | 0.0 | 1.0 | 2.5 | 6.0 | 11.0 | 24.5 | 25.5 | 20.0 | 9 5 | 0.0 | 0.0 | 6.0 | 12.0 | 82.0 |
| Maple Grove | Brock Ave | O'Hara Ave | Barber Asphalt Paving Co | Bermudez | 9.74 | | 62 | 315 | 240 | 1.079 | 194 | 95.22 | 2.39 | 2.39 | 67.98 | 95.60 | 14.52 | 2.0 | 3.0 | 2.5 | 6.0 | 11 5 | 22 0 | 24 0 | 13.0 | 10 0 | 0.0 | 0.0 | 4.0 | 8.0 | 88.0 |
| Margueretta St | Bloor St | 988 feet north | Construction & Paving Co | Texas | | | | | | 1.038 | 266 | 99.02 | .46 | .52 | 67.12 | 99.20 | 19.21 | | | | | | | | | | | | | | | | | | |
| | | | | California | 9.64 | 88.9 | 36 | 320 | 260 | 1.035 | 185 | 99.34 | .24 | .42 | 86.04 | 99.27 | 12.44 | 0.0 | 1.0 | 1 5 | 6.0 | 9 5 | 15.0 | 28.0 | 26.5 | 12 5 | 0.0 | 0.0 | 8.0 | 12.0 | 80.0 |
| Margueretta St | Dundas St | Bloor St | Godson Contracting Co | Texas | 11.64 | 10.47 | 36 | 342 | 220 | 1.019 | 289 | 99.27 | .53 | .20 | 69.29 | 99 13 | 19.28 | 0.0 | 3.0 | 3.0 | 6 5 | 10.0 | 19.5 | 24 0 | 25.0 | 9.0 | 0.0 | 0.0 | 4.0 | 8.0 | 88.0 |
| Melbourne Ave | Dufferin St | Cowan Ave | Construction & Paving Co | " | | | | | | 1.038 | 266 | 99.02 | .46 | .52 | 67 12 | 99 20 | 19 21 | | | | | | | | | | | | | | | | | | |
| | | | | California | 10.00 | 9.55 | 44 | 320 | 280 | 1.035 | 185 | 99 34 | .24 | .42 | 86.04 | 99 27 | 12.44 | 0.0 | 1.5 | 3.0 | 7.0 | 14.0 | 24.0 | 25.0 | 16.5 | 9.0 | 0.0 | 0.0 | 2.0 | 8.0 | 90.0 |
| McCaul St | Queen St | College St | " " " | Texas | | | | | | 1.038 | 266 | 99.02 | .46 | .52 | 67.12 | 99.20 | 19.21 | | | | | | | | | | | | | | | | | | |
| | | | | California | 9.96 | 8.77 | 46 | 310 | 260 | 1.035 | 185 | 99.34 | .24 | .42 | 86.04 | 99.27 | 12.44 | 0.0 | 1.5 | 3.0 | 7.5 | 13.5 | 26.0 | 23.0 | 14.5 | 11.0 | 0.0 | 0.0 | 4.5 | 10.0 | 85.5 |
| New St | Davenport Road | West end | Barber Asphalt Paving Co | Bermudez | 10.00 | | 49 | 315 | 280 | 1.070 | 225 | 93 56 | 3 03 | 3.41 | 69.89 | 93.82 | 14.72 | 1.0 | 2.0 | 2.0 | 5.0 | 10.0 | 18.0 | 21.5 | 20.5 | 14.0 | 0.0 | 0.0 | 6.0 | 22.0 | 72.0 |
| Ontario Place | Ontario St | " | City Engineer | Texaco | 10.18 | | 35 | 425 | 280 | .999 | 212 | 99.58 | .18 | .24 | 70.90 | 99.13 | 12.00 | 0.0 | 0.5 | 1 0 | 5.0 | 10.0 | 22.5 | 25.0 | 22.0 | 14.0 | 0.0 | 0.0 | 2.0 | 8.0 | 90.0 |
| Parliament St | Queen St | Gerrard St | Construction & Paving Co | Texas (2) | | | | | | 1.038 | 266 | 99.02 | .46 | .52 | 67.12 | 99.20 | 19.21 | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | 1.021 | 265 | 99.54 | .19 | .47 | 65.36 | 99.40 | 18.93 | | | | | | | | | | | | | | | | | | |
| | | | | California | 9.21 | 8.25 | 54 | 320 | 260 | 1.035 | 185 | 99.34 | .24 | .42 | 86.04 | 99.27 | 12.44 | 0.0 | 1.0 | 1.5 | 5.5 | 11.0 | 25.0 | 23.5 | 20.5 | 12.0 | 0.0 | 0.0 | 5.0 | 10.0 | 85.0 |
| Price St | Yonge St | East end | Godson Contracting Co | Texas | 10.42 | 9.75 | 37 | 355 | 280 | 1.019 | 289 | 99.27 | .53 | .20 | 69.29 | 99.13 | 19.28 | 0.0 | 1.0 | 3.0 | 6.0 | 11.0 | 24.5 | 24.0 | 18.5 | 12.0 | 0.0 | 0.0 | 4.0 | 8.0 | 88.0 |
| Queen St | G.T.R. Tracks | Greenwood Ave | Barber Asphalt Paving Co | Bermudez (2 different shipm'ts) | 12.28 | 9.73 | 40 | 320 | 260 | 1.077 | 203 | 94.42 | 2.63 | 2.95 | 62.62 | 94.32 | 14.96 | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | 1.079 | 225 | 93.56 | 3.03 | 3.41 | 69.89 | 93.82 | 14.72 | 0.5 | 1.0 | 2.5 | 5.5 | 11.5 | 23.0 | 25.5 | 20.5 | 10.0 | 0.0 | 0.0 | 3.0 | 7.0 | 90.0 |
| Richmond St | Simcoe St | Peter St | Contruction & Paving Co | Texas | | | | | | 1.038 | 266 | 99.02 | .46 | .52 | 67.12 | 99.20 | 19.21 | | | | | | | | | | | | | | | | | | |
| | | | | California | 9.70 | 8.55 | 37 | 330 | 260 | 1.035 | 185 | 99.34 | .24 | .42 | 86.04 | 99.27 | 12.44 | 0.0 | 0.0 | 0.5 | 3.5 | 8.0 | 20.0 | 28.0 | 26.0 | 14.0 | 0.0 | 0.0 | 2.0 | 12.0 | 18.0 | 68.0 |
| Riverdale Ave | Logan Ave | Carlaw Ave | City Engineer | Texaco | 10.82 | | 28 | 350 | 265 | .998 | 243 | 99.36 | .34 | .30 | 72.31 | 98.80 | 12.72 | 0.0 | 4.5 | 8.5 | 14.5 | 17.5 | 24.0 | 16.5 | 10.0 | 4.5 | 0.0 | 0.0 | 4.0 | 24.0 | 72.0 |
| Rowanwood Ave | 429 ft. e. of Yonge | Scarth Road | Godson Contracting Co | Texas | 10.71 | 8.12 | 51 | 385 | 260 | 1.019 | 289 | 99.27 | .53 | .20 | 69.29 | 99.13 | 19.28 | 0.0 | 0.0 | 1.0 | 4.0 | 6.0 | 15.5 | 30.0 | 26.5 | 17.0 | 0.0 | 0.0 | 4.0 | 8.0 | 88.0 |
| Russell St | St George St | Spadina Crescent | City Engineer | Texaco | 10.63 | | 35 | 400 | 290 | .984 | 230 | 99.28 | .33 | .39 | 70.60 | 99.04 | 12.47 | 0.0 | 0.5 | 1.0 | 5.5 | 10.0 | 24.0 | 24.5 | 22.0 | 12.5 | 0.0 | 0.0 | 2.0 | 4.0 | 8.0 | 86.0 |
| Sackville St | King St | Queen St | " | " | 11.10 | 10.50 | 28 | 375 | 275 | .990 | 235 | 99.04 | .64 | .32 | 65.20 | 99.14 | 12.70 | 0.0 | 0.5 | 4.5 | 6.5 | 10.0 | 19.0 | 27.0 | 22.5 | 10.0 | 0.0 | 0.0 | 4.0 | 14.0 | 82.0 |
| Sackville St | Gerrard St | Carlton St | Barber Asphalt Paving Co | Bermudez | 9.97 | 9.70 | 58 | 320 | 270 | 1.079 | 194 | 95.22 | 2.39 | 2.39 | 67.98 | 95.60 | 14.52 | 1.0 | 2.0 | 1.5 | 5.5 | 10.5 | 24.0 | 25.0 | 20.0 | 10.5 | 0.0 | 0.0 | 4.0 | 8.0 | 88.0 |
| Sarah and Roden | Belmont St | McMurrich St | City Engineer | Texaco | 10.63 | | 28 | 375 | 280 | .971 | 221 | 99.49 | .39 | .12 | 69 70 | 99.59 | 10.95 | 0.0 | 0.0 | 1.5 | 4.5 | 9.0 | 26.5 | 22.0 | 24.0 | 12.5 | 0.0 | 0.0 | 2.0 | 8.0 | 90.0 |
| Shaftesbury Ave | Ottawa St | Summerhill Ave | Barber Asphalt Paving Co | Bermudez | 11.23 | | 47 | 310 | 265 | 1.079 | 225 | 93.56 | 3.03 | 3.41 | 69 89 | 93 82 | 14.72 | 0.0 | 0.5 | 1.5 | 5.0 | 10.5 | 24.5 | 26.0 | 22.0 | 10.0 | 0.0 | 0.0 | 4.0 | 12.0 | 84.0 |
| Shaw St | Queen St | Arthur St | Construction & Paving Co | Texas | | | | | | 1.021 | 265 | 99.34 | .19 | .47 | 65.36 | 99.40 | 18.93 | | | | | | | | | | | | | | | | | | |
| | | | | California | 12.00 | 8.64 | 86 | 325 | 245 | 1.035 | 185 | 99.34 | .24 | .42 | 86.04 | 99.27 | 12.44 | 4.0 | 12.0 | 5.5 | 8.5 | 10.0 | 20.0 | 18.0 | 15.0 | 7.0 | 0.0 | 0.0 | 2.0 | 6.0 | 92.0 |
| Shaw St | King St | Defoe St | City Engineer | Texaco | 10.10 | | 35 | 380 | 310 | .999 | 212 | 99.20 | .11 | .69 | 69.07 | 99.20 | 11.78 | 0.0 | 0.5 | 1.0 | 4.5 | 10.0 | 26.0 | 25.5 | 20.0 | 12.5 | 0.0 | 0.0 | 4.0 | 8.0 | 88.0 |
| Shaw St | College St | Bloor St | Construction & Paving Co | Sun | | | | | | 1.066 | 207 | 99.03 | 1.21 | .41 | 70.50 | 97.74 | 18.18 | | | | | | | | | | | | | | | | | | |
| | | | | California | 9.41 | 7.20 | 68 | 400 | 240 | 1.035 | 185 | 99.34 | .24 | .42 | 86.04 | 99.27 | 12 44 | 0.0 | 0.5 | 1.0 | 4.5 | 10.0 | 25.0 | 24 5 | 22.0 | 12.5 | 0.0 | 0.0 | 4.0 | 10.0 | 86.0 |
| Silver Ave | Golden Ave | Morrow Ave | " " " | Texas | | | | | | 1.038 | 266 | 99.02 | .46 | .52 | 67.12 | 99.20 | 19 21 | | | | | | | | | | | | | | | | | | |
| | | | | California | 9.21 | | 36 | 320 | 265 | 1 035 | 185 | 99.34 | .24 | .42 | 86.04 | 99.27 | 12 44 | 0.0 | 0.5 | 1.0 | 5.0 | 14.0 | 24.5 | 22.5 | 21.0 | 11.5 | 0.0 | 0.0 | 2.0 | 12.0 | 26.0 | 66.0 |
| Spadina Ave | Queen St | Adelaide St | Barber Asphalt Paving Co | Bermudez | 10.98 | 9.57 | 42 | 320 | 260 | 1.084 | 198 | 94.60 | 1.89 | 3.51 | 67.69 | 92.67 | 14.44 | 0.5 | 1.0 | 1.5 | 6.0 | 10.5 | 24.0 | 25.5 | 21 0 | 10.0 | 0.0 | 0.0 | 6.0 | 12.0 | 82.0 |
| Summerhill Ave | 1,115 ft. e. of Yonge | C.P.R. Tracks | " " " | " | 12.15 | | 47 | 320 | 270 | 1 079 | 225 | 93.56 | 3.03 | 3 41 | 69.89 | 93.82 | 14.72 | 0.0 | 0.5 | 1 5 | 5.0 | 10.5 | 24.5 | 26 0 | 22.0 | 10.0 | 0.0 | 0.0 | 4 0 | 12 0 | 84.0 |
| Sunnyside Ave | Galley Ave | Garden Ave | City Engineer | California | 9.75 | | 42 | 350 | 260 | 1.047 | 171 | 99 76 | .21 | .03 | 75.65 | 99.49 | 15.15 | 0 0 | 1.0 | 1.5 | 5.0 | 10.0 | 24 5 | 26.0 | 22.0 | 10.0 | 0.0 | 0.0 | 4.0 | 8 0 | 88.0 |
| St. Clarens Ave | Bloor St | Wallace Ave | Godson Contracting Co | Texaco | | | | | | .992 | 221 | 99.03 | .58 | .39 | 70.30 | 99.03 | 11.92 | | | | | | | | | | | | | | | | | | |
| | | | | California | 11.24 | 9.95 | 35 | 325 | 252 | 1.050 | 176 | 89.51 | .23 | .26 | 76 01 | 99.32 | 15.19 | 4.5 | 3.0 | 3.5 | 6.5 | 12.5 | 29.0 | 25.0 | 10 5 | 5.5 | 0.0 | 0.0 | 2.0 | 18.0 | 80.0 |
| Temperance St | Yonge St | Bay St | Barber Asphalt Paving Co | Bermudez | 11.90 | 9.90 | 43 | 320 | 265 | 1.084 | 198 | 94.60 | 1.89 | 3.51 | 67 69 | 92.67 | 14.44 | 1.0 | 5.0 | 1.5 | 6.5 | 14.0 | 22.0 | 25.5 | 16.5 | 8.0 | 0.0 | 0.0 | 4.0 | 6.0 | 90.0 |
| Thompson St | Munro St | Davies Ave | " " " | " | 10.53 | | 51 | 320 | 260 | 1.079 | 194 | 95.22 | 2.39 | 2.39 | 67.98 | 95.60 | 14.52 | 1.0 | 2.5 | 2.0 | 5.5 | 10.0 | 24.0 | 25.5 | 20.0 | 9.5 | 0.0 | 0.0 | 2.0 | 8.0 | 90.0 |
| Thorold St | Alhambra St | West end | City Engineer | Texaco | 10.22 | | 35 | 400 | 310 | .962 | 205 | 99.57 | .05 | .38 | 70.82 | 99.53 | 11.73 | 0.0 | 0.0 | 1.0 | 5.5 | 12.0 | 25.5 | 24.6 | 20.5 | 11.5 | 0.0 | 0.0 | 6.0 | 10.0 | 84.0 |
| Triller Ave | King St | Queen St | " " " | " | 11.33 | | 28 | 450 | 270 | .985 | 223 | 99.33 | .34 | .33 | 70 70 | 99.20 | 12.63 | 0.0 | 1.5 | 2.5 | 6.0 | 11.0 | 24.0 | 26.0 | 19.0 | 10.0 | 0.0 | 0.0 | 4.0 | 16.0 | 80.0 |
| Trinity Square | Yonge St | 220 feet west | Godson Contracting Co | Texas | 9.98 | | 43 | 335 | 250 | 1.024 | 228 | 99.22 | .39 | .39 | 66.88 | 99.28 | 17 57 | 0.0 | 3.0 | 3.0 | 8.0 | 13.0 | 25.0 | 22.5 | 17.5 | 8.0 | 0.0 | 0.0 | 2.0 | 8.0 | 90.0 |
| Ulster St | Bathurst St | Major St | City Engineer | Texaco | 10.66 | | 28 | 450 | 280 | .967 | 221 | 99.42 | .17 | .41 | 70.51 | 99.30 | 11.24 | 0.0 | 2.0 | 3.0 | 6.0 | 15.0 | 24.5 | 20 0 | 20.5 | 9.0 | 0.0 | 0.0 | 2.0 | 8.0 | 90.0 |
| Van Horne St | Davercourt Road | Bartlett Ave | Construction & Paving Co | Texas | | | | | | 1.024 | 275 | 99.56 | .32 | .12 | 62.78 | 99.49 | 17.52 | | | | | | | | | | | | | | | | | | |
| | | | | California | 9.90 | 8.81 | 54 | 320 | 280 | 1.035 | 185 | 99.34 | .24 | .42 | 86.04 | 99.27 | 12.44 | 0.0 | 1 5 | 2.0 | 5.0 | 10.0 | 24 5 | 25.0 | 21.5 | 10.5 | 0.0 | 0.0 | 2.0 | 6 0 | 92 0 |
| Winnifred Ave | Queen St | Eastern Ave | Barber Asphalt Paving Co | Bermudez | 9.42 | 9.31 | 31 | 320 | 260 | 1.084 | 198 | 94.60 | 1.89 | 3.51 | 67.69 | 92.67 | 14.44 | 1.5 | 1.0 | 2.0 | 6.5 | 12.5 | 21.0 | 22.0 | 21.5 | 12.0 | 0.0 | 0.0 | 2.0 | 6.0 | 92.0 |
| Wilfrow Ave | 448 ft. e. of Logan | Pape Ave | " " " | Trmidad Pitch Lake | 10.40 | 9.50 | 42 | 325 | 275 | 1.379 | 239 | 59.10 | 4.02 | 36.88 | 54.91 | | 8.60 | 2.5 | 4 5 | 3.5 | 5.0 | 10.0 | 20.0 | 20.5 | 24 0 | 10.0 | 0.0 | 0.0 | 4 0 | 20.0 | 76.0 |
| Wolfrey Ave | Broadview Ave | Bowden Ave | " " " | " | 9.50 | | 49 | 335 | 275 | 1.379 | 239 | 59.10 | 4.02 | 36.88 | 54.91 | | 8.60 | 2.5 | 5.0 | 4 5 | 7.0 | 13.5 | 22.0 | 20 0 | 17.0 | 8.5 | 0.0 | 0.0 | 2.0 | 20.0 | 78.0 |
| Wright Ave | Roncesvalles Ave | Sunnyside Ave | Construction & Paving Co | Texas | | | | | | 1.024 | 275 | 99.56 | .32 | .12 | 62.78 | 99.49 | 17.52 | | | | | | | | | | | | | | | | | | |
| | | | | California | 9.77 | 9.03 | 70 | 300 | 250 | 1.035 | 185 | 99.34 | .24 | .42 | 86.04 | 99.27 | 12 44 | 0.0 | 4.0 | 3.0 | 6.0 | 10.5 | 22.5 | 24.0 | 19.5 | 10.5 | 0.0 | 0.0 | 2 0 | 6 0 | 92 0 |
| REPAIRS—General | | | | City Engineer | California | 10.83 | 8.00 | 45 | | | 1445 | 176 | 99 84 | .04 | .12 | 75.74 | 93.49 | 16.83 | 0.0 | 5.0 | 11.5 | 27.0 | 17.0 | 20.0 | 11.0 | 6.0 | 2.5 | 0.0 | 0.0 | 6 0 | 16.0 | 78.0 |
| | | | | | Texaco | 12.75 | 8.86 | 28 | | | .997 | 226 | 99 40 | .25 | .37 | 67.66 | 99.43 | 11 67 | 0.0 | 1.0 | 1 5 | 6.0 | 13.5 | 20.0 | 22.0 | 25.0 | 11.0 | 0.0 | 0.0 | 4.0 | 14 0 | 82.0 |
| On pavements | under guarantee | | | Barber Asphalt Paving Co | Trinidad Pitch Lake | 11.97 | 9.58 | 27 | | | 1.379 | 239 | 59 10 | 4.02 | 36 88 | 54.91 | | 8 60 | 1.0 | 2.5 | 3.5 | 9.0 | 14.0 | 26 0 | 22.5 | 15.5 | 6.0 | 0.0 | 0.0 | 6.0 | 12.0 | 82.0 |
| " | " | | | | Bermudez | 10.00 | 9.26 | | | | 1.084 | 198 | 94.60 | 1.89 | 3.51 | 67.69 | 92.67 | 14.44 | 0.0 | 1 5 | 2.0 | 6.0 | 11.5 | 24.0 | 24.5 | 19 5 | 11.0 | 0.0 | 0.0 | 6.0 | 12.0 | 82.0 |
| " | " | | | Construction & Paving Co | Texas | | | | | | 1.038 | 266 | 99.02 | .46 | .52 | 67 12 | 99.20 | 19.21 | | | | | | | | | | | | | | | | | | |
| | | | | | California | 9.40 | 8.52 | 39 | | | 1.035 | 185 | 99.34 | .24 | .42 | 86.04 | 99.27 | 12.44 | 0.0 | 2.0 | 3.5 | 11.5 | 16.0 | 28.0 | 18.5 | 12.0 | 8.5 | 0.0 | 0.0 | 6.0 | 12 0 | 82.0 |
| " | " | | | Godson Contracting Co | Texas | 10.01 | 9.95 | 38 | | | 1.019 | 289 | 99 27 | .53 | .20 | 69 29 | 99.13 | 19.28 | 0.0 | 1 6 | 3.5 | 5.0 | 11.0 | 24.5 | 27.0 | 18.0 | 10.0 | 0.0 | 0.0 | 4.0 | 18.0 | 78.0 |
| " | " | | | Warren Bitulithic Paving Co | California | 9.76 | 9.18 | 63 | | | 1.049 | 167 | 99 60 | .21 | .19 | 72.22 | 99.50 | 10.19 | 2.0 | 4 5 | 3.0 | 7.0 | 15.0 | 24.5 | 24.5 | 13.0 | 6.5 | 0.0 | 0.0 | 2 0 | 4.0 | 94.0 |

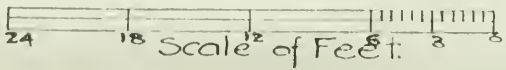



# PLAN

Showing

1st layer of 6" concrete in, and rails blocked up in position ready for the top 6" layer.

Scale – 6' = 1" in




Roadway Department
City Engineers Office
Toronto Feb., 22 1910 A.H.R.

D 3.

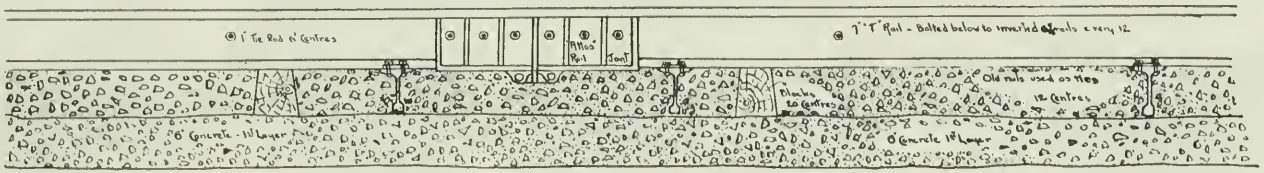
— ATLAS RAIL JOINT —
Roadway Department
City Engineers Office
Toronto Jan 20/10 A HR
Section at A
Joint 2'0 A
Scale :- 2" = 1'.
Scale of Inches

D 2.

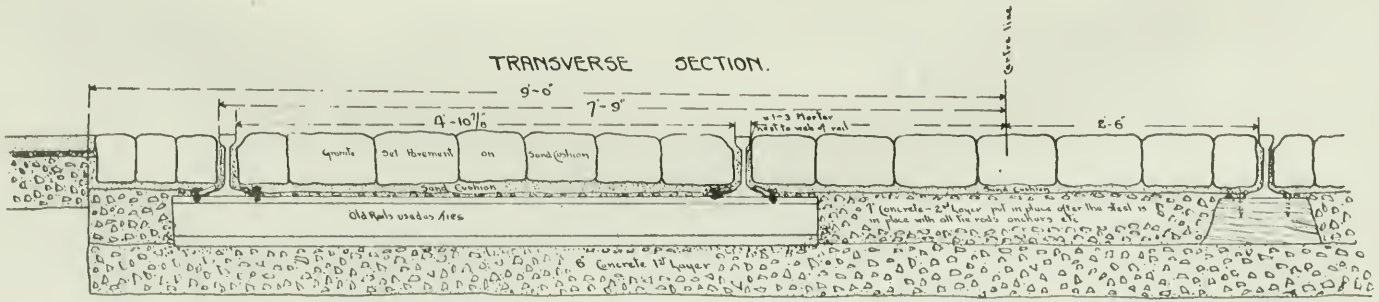
2 D

D4

## LONGITUDINAL SECTION.


@ 1' Tie Rod c' Centres
Atlas Rail Joint
@ 7" T" Rail - Bolted below to inverted U rails c every 12
Old rails used as ties
12 Centres
6" Concrete - 1st Layer
6" Concrete 1st Layer

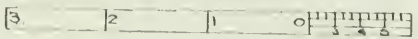
## TRANSVERSE SECTION.




Two Methods of putting in the concrete
(a) 6" layer on subgrade rails blocked up on same then 2nd 6" layer put in
(b) rails blocked up 12" above subgrade, then the concrete put in, in a solid 12 layer
In either case the blocks are only looked on as falsework but are left in

## CROSS SECTIONS of Track Allowance Construction

Scale - Hor., and Vert, 1"=1'




Scale of Feet

Roadway Department.
City Engineers Office.
Toronto Feb., 23 1910 AHR

D4.

The undermentioned is a list of those macadam roadways which were repaired and patched to keep in a safe state for traffic, but did not warrant resurfacing:—

Cypress, Princess, Front, Homewood, Sumach, Carlton, Princess, Eastern, River, Water, Wilton, Front, Cherry, Kingston Rd., Main St., Beach, Danforth, Kingston Rd., Spruce Hill Rd., Eastern, Munro, Simpson, Hogarth, DeGrassi, Logan, Brooklyn, Cumming, Agnes, Bay, Waverley, Breadalbane, Charles, Denison Avenue, Givens, Claremont, Foxley, Wells Hill and Bathurst, Austin Ter., St. Clair, Queen's Park, Exhibition Driveway, Exhibition Entrance, Division, Edward, Elizabeth, Elm, Front, Grange Ave., Grange Rd., Grenville, Grosvenor, St. Albans, St. Joseph, St. Mary, Sheppard, Spadina, Temperance, Teraulay, Walton, Wolseley, Armory, Centre, Chapel, Duncan, Eden Pl., Esplanade, Inkerman, Irwin, John, John, Lake, LaPlante, Niagara, St. Andrew, St. Nicholas, Palmerston, Bathurst, Elm, Cumberland, Weston Rd., Dundas, Gerrard, University, St. Thomas, St. Vincent, Stephanie, Trinity Sq., University, Wellington, York, Surrey Pl., Herrick, Borden, Huron, Lippincott, Lorne, Nassau, Oxford, Spadina, Beverley, Afton, Beaconsfield, Lisgar, Lisgar, St. Anne's Rd., Brock, Coolmine, Dufferin, Dufferin, Lansdowne, Sheridan, Lake Shore Rd., Wellington, Strachan, Bathurst, McDonnell Sq., Robinson, Davenport, Yonge, Crescent Rd., High Park Ave., Queen, Langley, Isabella.

The total amount expended on this work was $6,175.72.

## GENERAL REPAIRS.

The different classes of permanent pavements and sidewalks were all inspected, and the repairs necessary to put them in reasonably good condition made: 4,000 square yards of concrete sidewalk repairs: 4,700 square yards of brick roadway repairs: 44,000 square yards of asphalt pavement repairs were made during the year: besides this work it was necessary from time to time to repair the old cedar block and gravel roads, and to maintain in safe condition the unimproved roads throughout the City.

## TRACK ALLOWANCES.

Track allowance repairs are still taking a good deal of the attention of the maintenance staff, as nearly all the old pavements are in such bad condition that it is imperative that small gangs be kept making repairs on them all the time.

These repairs owing to conditions are of necessity very costly.

In some instances large stretches have been entirely repaved, and in such cases the Street Railway Company lifted and shimmed their

rails so that the greatest possible benefit shall result from the repairs. The following is a list of repair work done during the year:—

The work done on Roncesvalles Avenue at the intersections of Queen and Dundas Streets has been listed here, but is practically new work.

TABLE No. 14.

*Track Allowance Repairs.*

| | | |
|---|---|---|
| T. A. R. | General | $551 37 |
| " | Avenue Road | 473 15 |
| " | Bathurst Street | 90 60 |
| " | Bloor Street | 1,567 00 |
| " | Bloor Street East (Rosedale loop) | 6 34 |
| " | Bloor Street East | 631 97 |
| " | Broadview Avenue | 2,001 91 |
| " | College Street | 1,833 93 |
| " | Carlton Street | 64 36 |
| " | Church Street | 912 76 |
| " | Dovercourt Road | 240 91 |
| " | Dundas Street | 9,469 55 |
| " | Dupont Street | 234 26 |
| " | Front Street East | 54 88 |
| " | Front Street West | 200 87 |
| " | Gerrard Street | 7,380 83 |
| " | Howard Park | 8 82 |
| " | Keele Street | 234 84 |
| " | King Street East | 5,545 20 |
| " | King Street West | 13,631 52 |
| " | Lansdowne Avenue | 1,007 79 |
| " | McCaul Street | 4,056 43 |
| " | Ossington Avenue | 471 50 |
| " | Parliament Street | 1,973 48 |
| " | Queen Street West | 6,670 90 |
| " | Queen Street West (Sunnyside loop) | 59 90 |
| " | Queen Street East | 11,544 76 |
| " | Station Street | 302 03 |
| " | Sherbourne Street | 1,067 29 |
| " | Spadina Avenue | 805 59 |
| " | Wellington Street | 10 61 |
| " | Winchester Street | 46 56 |
| " | York Street | 64 63 |
| " | Yonge Street | 4,793 81 |
| " | Railway pavement, Roncesvalles | 19,545 87 |
| " | Richmond loop | 648 40 |
| | | $98,204 62 |

The pavements are still being badly cut up for the purpose of putting in services of one kind or another, and the work resulting from these cuts is becoming greater each year. This year, three gangs were at work nearly all season, repairing cuts, and the asphalt gang from time to time as occasion demanded. There were 4,852 cuts in permanent pavements, and 777 cuts in permanent sidewalks repaired during the year. Of this number 3,235 cuts in permanent pavements were repaired by contractors. The balance was done by the Department, the area being approximately 11,150 square yards.

## GRADING.

The following streets have been graded and turnpiked at the costs stated:—

| | |
|---|---|
| Dufferin St., G. T. R. to Dominion | $ 62 24 |
| Dominion St., Dufferin to Spencer | 18 83 |
| Edgar Avenue, Schofield to East Roxborough | 352 86 |
| Summerhill Avenue, Clarewood to east City limits | 180 21 |
| Indian Grove, Ridout to west end | 59 85 |
| Conduit Street, Western to Ontario | 63 43 |
| Eastern Avenue, G. T. R. to Queen | 239 96 |
| Danforth Avenue, Broadview to E. City limits | 137 85 |
| Brock Avenue, Bloor to a point south | 25 34 |
| Glendale Avenue, Wright to Garden | 121 77 |
| Galley Avenue, Roncesvalles to Sunnyside | 480 89 |
| Westminster Avenue, Roncesvalles to Sunnyside | 317 24 |
| Garden Avenue, Roncesvalles to Sunnyside | 288 48 |
| Barrett Avenue, Chelsea to Conduit | 601 66 |
| Alhambra Avenue, Bloor to Boustead | 15 25 |
| Rusholme Road, Dundas to College | 5 67 |
| Thorold Avenue, Alhambra to west end | 333 00 |
| Radford Avenue, Alhambra to Indian Road | 25 65 |
| Sunnyside Avenue, Garden to Wright | 710 91 |
| Sunnyside Avenue, Queen to Galley | 35 98 |
| Indian Road, Howard Park to Westminster | 45 75 |
| Shaw Street, south end to Tyrrell | 31 00 |
| Exhibition Road, Strachan to Exhibition | 7 77 |
| Albany Avenue, Nina to Hillcrest | 144 33 |
| St. Clair Avenue, Avenue Road to east of Oriole | 74 43 |
| Western Avenue, Conduit to South | 83 00 |
| Dupont Street, Shaw to a point east | 106 87 |
| Marmaduke Street, Roncesvalles to Indian Road | 55 11 |
| Ridout Street, Indian Road to Indian Grove | 74 00 |
| Queen Street, Woodbine to 5,000 feet east | 166 26 |
| Hammersmith Avenue, Queen to 280 feet north | 28 50 |

## NEW STREETS OPENED AND EXTENDED.

The following streets have been opened or extended during the year 1909:—

Harbord Street, Grace to Ossington.
Duncan Street, Queen to Adelaide.
Albemarle Avenue, old west end to Hampton.
Austin Avenue, old east end to Marjory.
Marjory Avenue, Dagmar northerly.

## SIDEWALK EXTENSIONS.

At the request of property owners and others, sidewalk extensions and private crossings have been constructed by this Department, for which there has been received and paid to the City Treasurer the sum of $1,058.36.

The amount received on miscellaneous accounts, and paid to the City Treasurer, was $2,124.24.

## STREET OPENING PERMITS.

The number of permits issued to builders, excavators and others who were desirous of temporarily removing portions of sidewalks, was five. In each case a deposit of $10 was made, as a guarantee that the walk would be properly restored. The total amount of these deposits received and paid to the City Treasurer was $50.

## STREET NUMBERING.

During the past year the building operations in this City have been continued on even a larger scale than during the previous year. This naturally necessitated the placing of a correspondingly larger number of house numbers. The number of figures placed this year was 18,995, as against 8,056 for the year 1908. These figures also include those used in the renumbering of certain streets. The number of street name tablets erected at intersections was 1,719, as against 1,489 last year.

The amount the Council saw fit to appropriate for this purpose was $2,000, and was not sufficient to meet all requirements.

The following streets have been re-numbered during the current year: Annette Street, Bartlett Avenue, Birtle Avenue, Bloor Street

(Junction), Brighton Place, Barrett Avenue, Clendennan Avenue, Clara Street, Central Avenue, Conduit Street, Charles Street W., Clinton Street (north part), Dundas Street (Junction), Empress Crescent, Fisken Avenue, Mavety Street, Palmerston Square, Queen Victoria Avenue, Ferguson Avenue, Fenwick Avenue, Gothic Avenue, Galley Avenue, Geoffrey Street, High Park Avenue (Junction), Hook Avenue, Humberside Avenue, Jones Avenue, Jersey Avenue, Keele Street, Law Street, Leuty Avenue, Lynd Avenue, Medland Street, Pacific Avenue, Quebec Avenue, Royce Avenue, Rowntree Street, Riverdale Avenue, Shudell Avenue, Smith Street, Woodville Avenue, Western Avenue, Winnifred Avenue, Richmond Street (formerly Farley Avenue), Silver Avenue, St. George Street, South Drive, Windeat Street, Willoughby Avenue, and a number of others renumbered in part.

## ASPHALT REPAIRS.

The asphalt plant proved a great success this year, and enabled the Department to keep all asphalt pavements out of guarantee, in good condition, and in a measure was effective in insuring the proper maintenance of those pavements, which are still in guarantee. In addition to this, the Department was able to keep pace with the service cuts pretty well, and at the end of the year had very few cuts left uncovered.

During the season 13,414 batches of asphalt and 2,303 batches of binder were turned out, or approximately 3,200 loads of 5 batches each.

The average cost per batch of binder and surface is made up as follows:—

| | No. Batches. | Pay Roll per batch. | Aggreg. per batch. | Fuel per batch. | Burden per batch. | Total cost per batch. |
|---|---|---|---|---|---|---|
| Binder ... | 2,303 | .10 | 1.05 | .04 | .58 | 1.87 |
| Surface ... | 13,414 | .21 | 1.95 | .07 | .51 | 2.74 |

Each batch of asphalt will lay approximately 6 yards of surface 2 inches thick, and each batch of binder will lay 12 square yards, 1 inch thick.

Binder is not used in making the ordinary asphalt repairs except in cases of excessive thickness.

The average cost of asphalt repairs for the year was 54 cents per square yard.

## PLANK SIDEWALKS.

Six plank walks were constructed during the year as local improvements, as follows:—

| Street. | Side. | From. | To. | Width | Length. | Cost. |
|---|---|---|---|---|---|---|
| | | | | | | $ c. |
| Crawford | East | College | 1050 north | 4 feet | 1050 feet | 365 45 |
| Danforth | South. | Pape | 272 ft. east | 5½ feet | 272 feet | 135 48 |
| Dawes Road | West. | Danforth | South end | 4 feet | 438 feet | 188 67 |
| Minto St | North. | Colina | 248 ft. west and 136 ft. east | 4 feet | 450 feet | 160 95 |
| Severn St | North. | Yonge | Rosedale R'vine | 4 feet | 650 feet | 144 10 |
| Summerhill | North. | Macleman | Standish | 2 feet | 650 feet | 269 58 |

## WOODEN CROSSINGS.

Sixty-four new wood crossings were constructed by this Department, in 1909, as against 10 for the year 1908.

In addition to this, all the old wooden crossings in the City have received careful attention, thus rendering them safe for traffic.

## PERMANENT CROSSINGS.

Sixty-one permanent crossings were constructed, as against sixty-eight laid during 1908. These crossings were built of brick, stone or scoria blocks, and constitute a very clean and durable type of crossing.

## HOUSE OF INDUSTRY STONE.

During the season 1908-9, the casual inmates of the House of Industry broke 2,029 cubic yards of stone. The amount broken for a like period during the preceding year was 1,565 cubic yards.

## ISLAND WALKS.

All the existing wooden walks on the Island were thoroughly repaired, and rendered safe for traffic. No new walks were constructed.

## SNOW CLEANING SIDEWALKS.

During the winter 1908-9, the snow was removed from 2,115,557 lineal feet of sidewalk, as against 2,157,899 lineal feet during the preceding winter.

The cost of this work was $7,415.38, or a rate of 3 5-10 mills, assessed against the properties fronting on the walks cleaned.

As the rate for the previous winter was 4 1-10 mills, a decrease of 9-10 mills is apparent.

## STAFF.

During the year fourteen foremen were constantly at work on various kinds of repairs, giving employment to about 250 men.

In addition to this staff there were nine district foremen looking after snow cleaning and repairs that were urgently needed to keep the pavements and sidewalks in a safe and satisfactory condition. This increase over last year is due to the newly annexed territory.

Respectfully submitted.

M. A. STEWART,
*Assistant Engineer.*

## TABLE No. 5.

### Asphalt Pavements—1909-10.

| Street. | From. | To. | Width Lin. ft. | Length Lin. ft. |
|---|---|---|---|---|
| Antler | Perth | Franklin | 24 | 424 |
| Broadway Pl | 198 ft. 7 in. w. of Spadina | West End | 18 | 345 |
| Broadway Pl | Spadina | 198 ft. 7 in. west | 18 | 201 |
| Boustead | 650 ft. w. of Roncesvalles | Indian Rd | 24 | 421 |
| Beaumont Rd. | Glen Rd | 600 ft. east | 21 | 608 |
| Brock | Bloor | 1,000 ft. south | 24 | 1,043 |
| Barton | Brunswick | Howland | 24 | 261 |
| Berkeley | King | N.s. of Duke | 24 | 269 |
| Beaty | King | Queen | 24 | 1,180 |
| Bond | Queen | Wilton | 28 | 1,142 |
| Borden | Ulster | Bloor | 24 | 1,901 |
| Berkeley | Queen | Wilton | 24 | 1,386 |
| Booth | Queen | Eastern | 21 | 948 |
| Britain | George | Sherbourne | 24 | 642 |
| Brock | Middleton | G.T.R. Tracks | 24 | 395 |
| Campbell | Wallace | Antler | 24 | 942 |
| Clarence Sq. | Spadina | Spadina | 24 | 884 |
| Caer Howell | Simcoe | University | 30 | 163 |
| Caer Howell | McCaul | S.s. Caer Howell running e. from Simcoe | 24 | 658 |
| Carlaw | Eastern | 1,034 ft. south | 24 | 1,122 |
| Clifford | Strachan | Stanley Park | 24 | 466 |
| Cecil | Henry | W.s. Beverley | 24 | 327 |
| Clinton | Yarmouth | Dupont | 20 | 543 |
| Carroll | Queen | Thompson | 20 | 212 |
| Dovercourt | Dundas | Churchill | 24 | 693 |
| Dunn | Queen | Railway Tracks | 20 | 2,719 |
| Dalhousie | Gould | Gerrard | 20 | 579 |
| Dagmar | Jones | 613 ft. west, thence south 71 ft. | 24 | 681 |
| Dovercourt | Queen | Dundas | 24 | 2,134 |
| Emerson | Wallace | Lappin | 24 | 925 |
| Frizzell | 18 ft. w. of e s. of Pape | Kiswick | 24 | 653 |
| Foxbar Rd | Avenue Rd | St. Clair | 24 | 1,285 |
| Fermanagh | Sorauren | Roncesvalles | 24 | 1,354 |
| Fern | Roncesvalles | Sunnyside | 20 | 542 |
| Galley | Roncesvalles | Sunnyside | 24 | 531 |
| Garden | Roncesvalles | Sunnyside | 20 | 538 |
| Glen Rd | Bridge | N.s. of Highland | 24 | 366 |
| Herrick | Bathurst | Euclid | 24 | 807 |
| Harbord | Bathurst | Spadina | 24 | 1,736 |

## TABLE No. 5.

ASPHALT PAVEMENTS—1909-10.

| Pavement Sq. yds. | Curb. Width Lin. in. | Curb. Length. Lin. ft. | Curb. Class. | Completed | Contractor. |
|---|---|---|---|---|---|
| 1,137 | 6 | 849 | Concrete | June 26, 1909 | Barber Asphalt Pav. Co. |
| 690 | 6 | 690 | Concrete | June 23, 1909 | Day labor. |
| 402 | 6 | 398 | Concrete | June 3, 1909 | Day labor. |
| 1,125 | ... .... | ..... | ..... | Sept. 24, 1909 | Constructing & Pav. Co. |
| 1,469 | 6 | 1,227 | Concrete | June 16, 1909 | Constructing & Pav. Co. |
| 2,959 | 6 | 78 | " | Sept. 11, 1909 | Day labor. |
| 695 | ..... | ..... | ..... | Sept. 28, 1909 | " |
| 706 | ..... | ..... | ..... | May 19, 1909 | Godson Contracting Co. |
| 3,147 | ..... | ..... | ..... | July 7, 1909 | Barber Asphalt Pav. Co. |
| 3,549 | .... ..... | ..... | ..... | Nov. 4, 1909 | Godson Contracting Co. |
| 5,244 | ..... | ..... | ..... | Sept. 25, 1909 | Day labor. |
| 3,807 | ..... | ..... | ..... | June 18, 1909 | Barber Asphalt Pav. Co. |
| 2,212 | ..... | ..... | ..... | Sept. 14, 1909 | " " " |
| 1,742 | 6 | 40 | Concrete | Oct. 8, 1909 | Day labor. |
| 1,080 | 6 | 773 | " | July 3, 1909 | Barber Asphalt Pav. Co. |
| 2,623 | 6 | 1,910 | Concrete | Nov. 13, 1909 | Barber Asphalt Pav. Co. |
| 2,430 | 6 | 21 | " | June 2, 1909 | Godson Contracting Co. |
| 542 | ..... | ..... | ..... | Aug. 26, 1909 | Barber Asphalt Pav. Co. |
| 1,896 | ..... .... | .. ..... | ..... . | Aug. 25, 1909 | " " " |
| 3,095 | 6 | 33 | Concrete | Sept. 20, 1909 | Barber Asphalt Pav. Co. |
| 1,303 | 6 | 9 | " | Oct. 1, 1909 | Constructing & Pav. Co. |
| 1,002 | ..... | ..... | ..... | Nov. 20, 1909 | Godson Contracting Co. |
| 1,205 | ..... | ..... | ... .... | June 28, 1909 | Barber Asphalt Pav. Co. |
| 471 | 6 | 323 | Concrete | Nov. 25, 1909 | " " " |
| 1,908 | .... .... | ..... | ..... | Nov. 19, 1909 | Godson Contracting Co. |
| 6,043 | .... ..... | ..... | ..... | Sept. 8, 1909 | Day labor. |
| 1,287 | ..... | . ..... | ..... | Sept. 30, 1909 | " |
| 1,822 | 6 | 161 | Concrete | Aug. 3, 1909 | Barber Asphalt Pav. Co. |
| 5,807 | ... ..... | ..... | ..... | Oct. 18, 1909 | Godson Contracting Co. |
| 2,591 | ..... | ..... | .... .. | June 30, 1909 | Constructing & Pav. Co. |
| 1,799 | .... .. | ..... | ..... | Oct. 7, 1909 | Barber Asphalt Pav. Co. |
| 3,427 | ..... | ..... | ..... | Aug. 24, 1909 | Constructing & Pav. Co. |
| 3,616 | ..... | ..... | ..... | Sept. 13, 1909 | Godson Contracting Co. |
| 1,205 | ..... | ..... | . ..... | Oct. 30, 1909 | Constructing & Pav. Co. |
| 1,417 | ..... | ..... | ..... | Sept. 27, 1909 | Constructing & Pav. Co. |
| 1,195 | ..... | ..... | .. .... | Sept. 25, 1909 | " " " |
| 1,176 | 6 | 55 | ..... | Nov. 11, 1909 | Day labor. |
| 2,148 | ..... | ..... | ..... | July 20, 1909 | Godson Contracting Co. |
| 4,933 | 6 | 187 | .... .. | Aug. 21, 1909 | Constructing & Pav. Co. |

ASPHALT PAVEMENTS--*Continued.*

| Street. | From. | To. | Width Lin. ft. | Length Lin. ft. |
|---|---|---|---|---|
| High Park Boulevard | Roncesvalles | Sunnyside | 32 | 558 |
| Jones | Gerrard | Tracks | 24 | 1,015 |
| Jerome | Dundas. | 500 feet west | 24 | 502 |
| Kendal | Wells | Castle, s.s. | 24 | 505 |
| Lansdowne | S.s. Marion | Rideau | 24 | 1,526 |
| Lansdowne | Queen | Marion | 24 | 735 |
| Lucas | Sorauren | Roncesvalles | 24 | 1,357 |
| *Lowther | Avenue Road | 630 feet west | 22 | 644 |
| Lennox | Bathurst | Manning | 24 | 1,084 |
| Margueretta | Bloor. | 988 feet north. | 24 | 988 |
| Margueretta | Dundas. | Bloor. | 24 | 3,231 |
| Melbourne | Dufferin | Cowan | 20 | 1,100 |
| Maple Grove. | Brock | O'Hara | 21 | 435 |
| McCaul | Queen | College | 22 | 3,379 |
| New. | Davenport Road | West end | 18 | 230 |
| Ontario Place. | Ontario | West end | 18 | 323 |
| Parliament | Queen | N.s. Gerrard running west. | 26 | 2,555 |
| Price | Yonge | East end | 25 | 516 |
| Queen. | G.T.R. tracks | Greenwoods. | 28 | 5,588 |
| Roncesvalles. | N. and s. ends not | completed in 1908. | Variable | 757 |
| Richmond | Simcoe. | Peter. | 30 | 1,652 |
| Riverdale | Logan | Carlaw | 24 | 610 |
| Rowanwood | 429 ft. e. of Yonge | Scarth | 21 | 580 |
| Russell | St. George | Spadina Crescent | 24 | 625 |
| St. Clarens. | Bloor. | Wallace. | 24 | 1,455 |
| Sackville. | King. | Queen | 24 | 694 |
| Silver | Golden. | Morrow. | 24 | 422 |
| Sarah St. & Roden Pl. | Belmont | McMurrich | 22 | 335 |
| Shaftesbury | Ottawa. | Summerhill. | 24 | 563 |
| Summerhill | 1,115 ft. e. of Yonge | Railway tracks | 24 | 568 |
| Spadina | Adelaide | Queen | 48 | 761 |
| Shaw | Queen | Arthur | 32 | 1,874 |
| Shaw | King. | N.s. Defoe | 26 | 486 |
| Sackville. | Gerrard. | Carlton. | 24 | 833 |
| Shaw | College. | Bloor. | 24 | 2,816 |
| Sunnyside | S.s Galley. | N s. Garden running east. | 24 | 393 |
| Triller | King | Queen | 24 | 546 |
| Temperance | Yonge | Bay | 44 ft. 4 in. | 586 |
| Trinity Sq | Yonge | 220 ft. west | 22 | 224 |
| Thorold | Alhambra | West end | 24 | 384 |
| Thompson | Munro | Davies | 20 | 454 |

ASPHALT PAVEMENTS—*Continued.*

| Pavement Sq. Yds. | Curb. | | | Completed. | Contractor. |
|---|---|---|---|---|---|
| | Width Lin. in. | Length Lin. ft. | Class. | | |
| 2,010 | 6 | 51 | .... .. | Nov. 10, 1909 | Barber Asphalt Pav. Co. |
| 2,769 | 6 | 32 | Concrete | May 31, 1909 | Godson Contracting Co. |
| 1,339 | ..... | ..... | ..... | Oct. 6, 1909 | " " " |
| 1,343 | ... ..... | ..... | ..... | June 28, 1909 | " " " |
| 4,190 | ..... | ..... | ..... | Nov. 25, 1909 | Constructing & Pav. Co. |
| 1,956 | ..... | ..... | ..... | Sept. 28, 1909 | " " " |
| 3,619 | ..... | ..... .. | ..... | Sept. 16, 1909 | Godson Contracting Co. |
| 1,596 | ..... | ..... | ..... | Oct. 8, 1909 | " " " |
| 2,877 | ..... | ..... | ..... | Nov. 23, 1909 | Barber Asphalt Pav. Co. |
| 2,635 | ..... | ..... | ..... | July 3, 1909 | Constructing & Pav. Co. |
| 8,612 | ..... | ..... | ..... | Aug. 3, 1909 | Godson Contracting Co. |
| 2,579 | .... .... | .... ... | ... .... | July 6, 1909 | Constructing & Pav. Co. |
| 1,014 | 6 | 21 | Concrete | Nov. 24, 1909 | Barber Asphalt Pav. Co. |
| 8,501 | ..... | ..... | . ..... | Sept. 13, 1909 | Constructing & Pav. Co. |
| 466 | 6 | 460 | Concrete | Aug. 23, 1909 | Barber Asphalt Pav. Co. |
| 642 | 6 | 646 | " | Oct. 8, 1909 | Day labor. |
| 7,662 | 6 | 4,494 | " | Sept. 29, 1909 | Constructing & Pav. Co. |
| 1,368 | ..... | ..... | ..... | Oct. 20, 1909 | Godson Contracting Co. |
| 18,291 | 6 | 10,468 | Concrete | Aug. 11, 1909 | Barber Asphalt Pav. Co. |
| 3,750 | 6 | 1,139 | " | Oct. 14, 1909 | Day labor. |
| 5,451 | 6 | 58 | " | May 29, 1909 | Constructing & Pav. Co. |
| 1,627 | ..... | ..... | ..... | July 30, 1909 | Day labor. |
| 2,470 | 6 | 2,078 | Concrete | Nov. 15, 1909 | Godson Contracting Co. |
| 1,740 | ..... | ..... | ..... | Oct. 18, 1909 | Day labor. |
| 4,004 | 6 | 89 | Concrete | May 26, 1909 | Godson Contracting Co. |
| 1,856 | ..... | ..... | ..... | July 28, 1909 | Day labor. |
| 1,127 | 6 | 420 ..... | | Apl. 26, 1909 | Ontario Concrete Pav. Co. |
| | | 420 | Concrete | June 28, 1909 | Constructing & Pav. Co. |
| 812 | . .. .... | ..... | ..... | Sept. 29, 1909 | Day labor. |
| 1,501 | ..... | ..... | .... ... | Aug. 21, 1909 | Barber Asphalt Pav. Co. |
| 1,619 | 6 | 77 | Concrete | Aug. 20, 1909 | " " " |
| 4,839 | 6 | 3,318 | " | Oct. 14, 1909 | " " " |
| 7,279 | 6 | 3,635 | " | Nov. 4, 1909 | Constructing & Pav. Co. |
| 1,427 | 6 | 915 | " | Nov. 27, 1909 | Day labor. |
| 2,234 | 6 | 7 | " | Nov. 20, 1909 | Barber Asphalt Pav. Co. |
| 7,640 | 6 | 5,652 | " | Dec. 11, 1909 | Constructing & Pav. Co. |
| 1,236 | 6 | 57 | " | Oct. 13, 1909 | Day labor. |
| 1,481 | 6 | 1,087 | " | Aug. 24, 1909 | Day labor, Order of Council. |
| 2,968 | 6 | 38 | Concrete | Sept. 4, 1909 | Barber Asphalt Pav. Co. |
| 576 | 6 | 9 | " | Nov. 16, 1909 | Godson Contracting Co. |
| 1,020 | 6 | 766 | " | Nov. 10, 1909 | Day labor. |
| 1,036 | ..... | ..... | ..... | Nov. 25, 1909 | Barber Asphalt Pav. Co. |

ASPHALT PAVEMENTS—*Continued.*

| Street. | From. | To. | Width Lin. ft. | Length Lin. ft. |
|---|---|---|---|---|
| Ulster | Bathurst | Major | 24 | 1,099 |
| Van Horne | Dovercourt | Bartlett | 24 | 948 |
| Withrow | 446 ft. e. of Logan. | Pape | 21 | 889 |
| Wolfrey | Broadview | Bowden | 24 | 1,011 |
| Winnifred | Queen | Eastern | 24 | 959 |
| Wright | Roncesvalles | Sunnyside | 21 | 551 |
| | | | | 81,372 |

*Asphalt surface laid on existing Brick pavement.
†Carried over from 1908.
§Pavement 24 ft. wide on each side of Boulevard in centre of street.
§‖ " 16 " " "

ASPHALT BLOCK.

| | | | | |
|---|---|---|---|---|
| Arthur | Bathurst | Dundas | 26 | 3,976 |
| Argyle | Dundas | Shaw | 24 | 621 |
| Claremont | Arthur | Mansfield | 24 | 886 |
| Dufferin | Lindsay | Bloor | 24 | 2,300 |
| Grace | Bloor | 420 ft. south | 24 | 420 |
| Grace | 420 ft. s. of Bloor | 225 ft. further south | 24 | 225 |
| Humbert | Dundas | Dovercourt Rd. | 16 | 939 |
| Markham N | Olive | Vermont | 24 | 624 |
| Roseberry | Bathurst | East end | 20 | 333 |
| Shaw | Bloor | Essex | 24 | 1,688 |
| Wolseley | Markham | Palmerston | 18 | 313 |
| | | | | 12,325 |

ASPHALT PAVEMENTS—*Continued.*

| Pavement Sq. yds. | Curb. | | | Completed. | Contractor. |
|---|---|---|---|---|---|
| | Width Lin. in. | Length Lin. ft. | Class | | |
| 2,926 | | | | Sept. 28, 1909 | Day labor. |
| 3,015 | | | | Oct. 26, 1909 | Constructing & Pav. Co. |
| 2,107 | 6 | 1,706 | Concrete | June 19, 1909 | Barber Asphalt Pav. Co. |
| 2,698 | | | | June 12, 1909 | " " |
| 2,555 | | | | Sept. 29, 1909 | " " |
| 1,287 | | | | Oct. 30, 1909 | Constructing & Pav. Co. |
| 230,657 | | 44,397 | | | |

ASPHALT BLOCK.

| | | | | | |
|---|---|---|---|---|---|
| 12,332 | 6 | 7,582 | Concrete | Aug. 27, 1909 | Godson Contracting Co. |
| 1,797 | 6 | 25 | " | Nov. 13, 1909 | Grant Contracting Co. |
| 2,479 | 6 | 59 | " | Dec. 2, 1909 | Constructing & Pav. Co. |
| 6,271 | 6 | 75 | " | Oct. 7, 1909 | John Maguire. |
| 1,120 | | | | Sept. 9, 1909 | Day labor. |
| 600 | | | | Sept. 7, 1909 | " |
| 1,724 | | | | June 14, 1909 | John Maguire. |
| 1,664 | | | | July 2, 1909 | Constructing & Pav. Co. |
| 739 | | | | July 31, 1909 | Grant Construction Co. |
| 4,666 | 6 | 70 | Concrete | Sept. 1, 1909 | Godson Contracting Co. |
| 626 | | | " | Nov. 5, 1909 | Constructing & Pav. Co. |
| 34,018 | | 7,811 | | | |

BITULITHIC.

| Street. | From. | To. | Width Lin. Ft. | Length Lin. Ft. |
|---|---|---|---|---|
| *Avenue Rd. | 350 ft. n. of Balmoral | St. Clair | 24 | 489 |
| Alhambra | Boustead | Thorold, n.s. | 24 | 645 |
| Alhambra | Thorold | Bloor | 24 | 304 |
| Brock | S.s. Middleton | Dundas | 24 | 1,356 |
| Brighton | Pape | East End | 21 | 308 |
| Clarendon | Poplar Plains Rd. | Russell Hill Road | 24 | 1,046 |
| Constance | Roncesvalles | Sunnyside | 24 | 562 |
| Cluny | 22½ ft. s. of n.s. Chestnut Park | Pricefield | 21 | 712 |
| Dunvegan | St. Clair | North City Limit | 24 | 1,720 |
| Geoffrey | Roncesvalles | Sunnyside | 24 | 564 |
| Grafton | Roncesvalles | Triller | 20 | 545 |
| Gladstone Place | Gladstone | East End | 24 | 180 |
| Huron | Phœbe | Sullivan | 24 | 237 |
| Highland | Schofield | 336 ft. west | 18 | 335 |
| Heath | Yonge | Avenue Road | 24 | 1,851 |
| Hewitt | Roncesvalles | Indian Road | 24 | 1,038 |
| Lynd | College | Neepawa | 24 | 411 |
| Lappin | Dufferin | Lansdowne | 24 | 2,017 |
| Marmaduke | Roncesvalles | Sunnyside | 24 | 565 |
| Oriole Rd. | St. Clair | Lonsdale | 24 | 1,490 |
| Pearson | Roncesvalles | Sunnyside | 20 | 521 |
| Pelham Pl. and Binscarth Rd. | Glen Road | Schofield | 24 | 864 |
| Parr | Dufferin | E.s. Macklem | 18 | 254 |
| Pricefield | N.w. Limit of Lot No. 23 | W.s. Cluny | 21 | 544 |
| Rusholme Rd. | St. Anne's Road | College | 24 | 662 |
| Radford | Alhambra | Indian Road | 24 | 797 |
| Ridout | Indian Road | Indian Grove | 24 | 384 |
| Russell Hill Road | S.s. Clarendon | St. Clair | 24 | 1,079 |
| Scarth Road | Chestnut Park | N.w. Limit of Lot No. 23 | 21 | 733 |
| Sunnyside | Wright | Howard Park | 24 | 2,266 |
| Sidney | Marlborough | 21 ft. n. of s.s. Cottingham | 24 | 362 |
| Whitney | Glen Road | East Roxborough | 24 | 1,041 |
| Walter | Roncesvalles | Sunnyside | 24 | 563 |
| | | | | 2,6445 |

*Includes area not completed in 1908 contract, from s.s. St. Clair to n.s. Lonsdale.

BITULITHIC.

| Pavement Sq. yds. | Curb. Width Lin. in. | Curb. Length Lin. ft. | Curb. Class | Completed. | Contractor. |
|---|---|---|---|---|---|
| 1,394 | 6 | 1,016 | Concrete | June 5, 1909 | Warren Bit. Paving Co. |
| 1,850 | ..... | ..... | ..... | June 30, 1909 | " " |
| 810 | 6 | 610 | Concrete | June 30, 1909 | Day labor. |
| 3,980 | 6 | 35 | " | July 16, 1909 | Warren Bit. Paving Co. |
| 721 | 6 | 616 | " | May 18, 1909 | " " |
| 2,854 | 6 | 2,101 | " | June 4, 1909 | " " |
| 1,506 | ..... | ..... | ..... | Oct. 28, 1909 | " " |
| 2,099 | 6 | 1,379 | Concrete | Nov. 19, 1909 | " " |
| 4,910 | 6 | 3,536 | " | Nov. 25, 1909 | " " |
| 1,518 | ..... | ..... | ..... | July 27, 1909 | " " |
| 1,211 | ..... | ..... | ..... | Aug. 24, 1909 | " " |
| 481 | 6 | 180 | Concrete | Nov. 9, 1909 | " " |
| 632 | ..... | ..... | ..... | July 17, 1909 | " " |
| 672 | 6 | 670 | Concrete | Oct. 16, 1909 | Day labor. |
| 5,000 | 6 | 3,706 | " | Dec. 17, 1909 | Warren Bit. Paving Co. |
| 2,767 | ..... | ..... | ..... | June 28, 1909 | " " |
| 1,149 | ..... | ..... | ..... | July 2, 1909 | " " |
| 5,614 | 6 | 143 | Concrete | Nov. 15, 1909 | " " |
| 1,513 | ..... | ..... | ..... | Oct. 19, 1909 | " " |
| 4,698 | 6 | 146 | Concrete | June 11, 1909 | " " |
| 1,158 | ..... | ..... | ..... | July 19, 1909 | " " |
| 3,711 | 6 | 178 | Concrete | Oct. 15, 1909 | " " |
| 536 | 6 | 499 | " | Nov. 4, 1909 | " " |
| 1,395 | 6 | 1,064 | " | Nov. 20, 1909 | " " |
| 1,820 | 6 | 1,308 | " | July 14, 1909 | " " |
| 2,124 | ..... | ..... | ..... | Nov. 3, 1909 | " " |
| 1,024 | 6 | 768 | Concrete | Nov. 1, 1909 | " " |
| 2,938 | 6 | 2,169 | " | Dec. 1, 1909 | " " |
| 1,857 | 6 | 1,476 | " | June 24, 1909 | " " |
| 6,836 | 6 | 109 | " | Aug. 3, 1909 | " " |
| 1,009 | 6 | 704 | " | Nov. 24, 1909 | " " |
| 3,081 | 6 | 2,165 | " | Sept. 21, 1909 | " " |
| 1,506 | ..... | ..... | ..... | Oct. 29, 1909 | " " |
| 73,775 | | 24,578 | | | |

BRICK.

| Street. | From. | To. | Width Lin. ft. | Length. Lin. ft. |
|---|---|---|---|---|
| Churchill | Ossington | 253 ft- west | 20 | 253 |
| Euclid | Euclid | East End | 9 | 178 |
| Huron | Dupont | North City Limits | 24 | 127 |
| Lane 1st s. of King | 12 ft. e. of w.s. of York St. | 116 ft. west, thence south 103 ft. 9 in. | 15 | 226 |
| Lane 1st n. of Queen | 15½ ft. e. of w.s. of Lansdowne | 15½ ft. west of e.s. of Macdonnell | 11 | 817 |
| Millicent | Dufferin | Emerson | 24 | 1,391 |
| Shaw Place | Ossington | Shaw | 24 | 600 |
| Spadina Rd. | Dupont | North City Limits | 24 | 129 |
| Withrow | Logan | 446 ft. east | 21 | 447 |
| | | | | 3,668 |

VITRIFIED BLOCK.

| | | | | |
|---|---|---|---|---|
| *Dundas | Lansdowne e.s. | Bridge | 23 | 604 |
| Gerrard | 700 ft. e. of w.s. of Logan | Pape | 26 | 610 |
| Lane 1st w. of Bathurst | College | 257 ft. south | 13 | 254 |
| Lane 1st s. of Queen | Elm Grove | Cowan | 10 | 364 |
| Lansdowne Ave. | Subway and Approaches | | 24 | 1,159 |
| Piper | 12 ft. e. of. w.s. of Bay | 108 ft. 4 in. w. of Bay | 24 | 120 |
| Pearl | Duncan | John | 24 | 379 |
| Queen | Roncesvalles | Railway Tracks | Variable | 123<br>906 |
| *Queen | River w.s. | Bridge | 28 | 154 |
| St. Patrick | Denison | 21 ft. w. of Hickory | 24 | 171 |
| | | | | 4,844 |

* Carried over from 1908.

MACADAM.

| | | | | |
|---|---|---|---|---|
| Huntley | Bloor | Bridge | 24 | 192 |
| St. Joseph | Queen's Park | 264 ft. east | 24 | 264 |
| | | | | 456 |

BRICK.

| Pavement Sq. yds. | Curb. Width Lin. in. | Curb. Length. Lin. ft. | Curb. Class. | Completed. | Contractor. |
|---|---|---|---|---|---|
| 561 | .... .... | ..... | ..... | Oct. 26, 1909 | Constructing & Pav. Co. |
| 178 | 6 | 322 | | July 5, 1909 | Reeve Concrete Pav. Co. |
| 331 | 6 | 254 | ..... | Sept. 11, 1909 | Constructing & Pav. Co. |
| 432 | 6 | 28 | ..... | Sept. 23, 1909 | Reeve Concrete Pav. Co. |
| 389 | 6 | 640 | ..... | Oct. 11, 1909 | Grant Contracting Co. |
| 8,709 | .... .... | ..... | .... ... | June 24, 1909 | J. H. McKnight Con. Co. |
| 1,600 | 6 | 1,198 | ..... | June 7, 1909 | Constructing & Pav. Co. |
| 344 | 6 | 253 | ..... | July 19, 1909 | " " " |
| 1,044 | 6 | 895 | ..... | May 19, 1909 | J. H. McKnight Con. Co. |
| 8,588 | | 3,590 | | | |

VITRIFIED BLOCK.

| | | | | | |
|---|---|---|---|---|---|
| 825 | 6 | 592 | ..... | May 19, 1909 | Constructing & Pav. Co. |
| 2,374 | 6 | 1,491 | .... ... | Aug. 20, 1909 | " " " |
| 368 | 6 | 502 | ..... | June 10, 1909 | Reeve Concrete Pav. Co. |
| 405 | 6 | 730 | ..... | Sept. 1, 1909 | Reeve Concrete Pav. Co. |
| 3,262 | 6 | 2,145 | ..... | Nov. 19, 1909 | Day labor, order of Council |
| 274 | 6 | 212 | ..... | June 23, 1909 | Grant Contracting Co. |
| 1,159 | 6 | 789 | ..... | Oct. 8, 1909 | Day labor. |
| 324 | 6 | 199 | .... . | July 14, 1909 | Day labor. |
| 2,667 | 6 | 1,755 | ..... | | J. H. McKnight Con. Co. |
| 483 | 6 | 174 | ..... | June 26, 1909 | J. Maguire. |
| 512 | 6 | 9 | ..... | July 23, 1909 | Reeve Concrete Pav. Co. |
| 12,653 | | 8,598 | | | |

MACADAM.

| | | | | | |
|---|---|---|---|---|---|
| 466 | 6 | 411 | ..... | June 22, 1909 | Constructing & Pav. Co. |
| 704 | 6 | 528 | .... ... | July 9, 1909 | Day labor, order of Council |
| 1,170 | | 939 | | | |

CONCRETE.

| Street. | From | To. | Width Lin. ft. | Length Lin. ft. |
|---|---|---|---|---|
| Darling | 1st Lane s. of Howard | 432 ft. south | 11 | 427 |
| Dermott Pl. | Spruce | Carlton | 11 | 415 |
| Lane 1st e. of Victoria | Queen | Shuter | 15 | 557 |
| Lane 1st w. of P'l'm'n | Harbord | Herrick | 10 | 491 |
| McDougall's Lane | Queen | Farley | 12.9 | 223 |
| St. Enoch's Square. | 132 ft. 9 in. s. of Shuter. | 80 ft. 8 in. fur. south | 17.6 | 81 |
| | | | | 2194 |

GRADING

| Street. | From. | To. | Width Lin. ft. | Length Lin. ft. |
|---|---|---|---|---|
| Albany | s.s. Hillcrest. | Nina | 66 | 570 |
| Albemarle | Former West Limit | Hampton | 40 | 143 |
| Austin | Former East End | Marjory | 40 | 104 |
| Barrett | Chelsea | Conduit | 40 | 601 |
| Boston | Queen | 1381 ft. north | 40 | 1381 |
| Glendale | Garden | Wright | 40 | 769 |
| Harbord | Clinton | Ossington | 40 | 450 |
| High Park Gardens. | Indian Road | Howard Park | 40 | 729 |
| Kippendavie | Queen | Beach | 40 | 1468 |
| Marjory | Dagmar | 80 ft. north | 40 | 80 |
| Sunnyside | Garden | Wright | 40 | 576 |
| | | | | 6871 |

CONCRETE.

| Pavement Sq. yds. | Curb. Width Lin. inches. | Curb. Length Lin. feet. | Curb. Class. | Completed. | Contractor. |
|---|---|---|---|---|---|
| 528 | 6 | 864 | ..... | Sept. 22, 1909 | Queen City Con. Pav. Co. |
| 507 | .... ..... | ..... | .... ... | Nov. 1, 1909 | Queen City Con. Pav. Co. |
| 929 | 6 | 1,134 | ..... | May 29, 1909 | Constructing & Pav. Co. |
| 433 | 6 | 777 | ..... | May 7, 1909 | Cres. Concrete Pav. Co. |
| 318 | ..... | ..... | .... ... | July 28, 1909 | A. Gardner & Co. |
| 168 | .. . .. .. | ..... | ..... | Sept. 24, 1909 | Queen City Con. Pav. Co. |
| 2883 | ..... | 2775 | | | |

GRADING.

| Cub. yds. Cut. | Cub. yds. Fill. | | | Completed. | Contractor. |
|---|---|---|---|---|---|
| Stumps, Boulders, &c., | | removed. | ..... | Aug. 26, 1909 | Day labor. |
| 555 | 826 | ..... | ..... | June 22, 1909 | " order of Council. |
| 350 | 2555 | ..... | ..... | Aug. 12, 1909 | " |
| ..... | 6450 | ..... | . ... .. | Car. over 1910 | " order of Council. |
| 471 | 1365 | ..... | .... ... | Dec. 1, 1909 | " |
| 1969 | 2266 | ... .... | ..... | Car. over 1910 | " order of Council. |
| ..... | 3000 | . ..... | ..... | Car. over 1910 | " order of Council. |
| 3101 | 3472 | ..... | ..... | Aug. 26, 1909 | T. Harshaw. |
| ..... .. | 1873 | ..... | ..... | Nov. 20, 1909 | J. H. McKnight Con. Co. |
| .... .... | 3071 | .... .. | ..... | Sept. 16, 1909 | Day labor, order of Council. |
| 2782 | 5660 | ..... | ..... | Oct. 21, 1909 | " order of Council. |
| 9228 | 30,478 | | | | |

NEW TRACK ALLOWANCE.

| Street. | From. | To. | Width Lin. ft. | Length Lin. ft. |
|---|---|---|---|---|
| ‡Avenue Rd. | Bloor. | 160 ft. n. of Davenport Rd. | 18 | 2,404 |
| *Arthur | Bathurst | Ossington. | 18 | 3,975 |
| ‡College | Yonge | McCaul | 18 | 2,806 |
| ‖Gerrard. | 700 ft. e. of w.s. of Logan. | Pape. | 18 | 702 |
| *Queen | Don Bridge. | Broadview. | 18 | 1,117 |
| *Roncesvalles. | Queen | 435 feet north. | 18 | 435 |
| *Shaw. | King. | Queen | 18 | 1,271 |
| §Yonge. | College. | Bloor. | 18 | 3,756 |
| | | | | 16,466 |

*Granite block track allowance.
‖Vitrified block track allowance.
‡Scoria and granite track allowance.
§Granite, scoria, asphalt, vitrified and wood block track allowance.

TRACK ALLOWANCE RECONSTRUCTION.

| | | | | |
|---|---|---|---|---|
| Dundas | S.s. Bloor. | Humberside. | 16.6 | 2,758 |
| Gerrard | Parliament | Don Bridge. | 16.6 | 2,743 |
| King | Sherbourne. | Spadina. | 16.6 | 7,244 |
| King | Dufferin | 2,750 feet east | 16.6 | 2,750 |
| King | Dufferin | 200 ft. e. of Queen. | 16.6 | 5,090 |
| Lansdowne | Wallace. | Royce. | 16.6 | 1,634 |
| McCaul | Queen | N.s. Anderson. | 16.6 | 1,512 |
| Parliament. | Queen | S.s Gerrard running east. | 16.6 | 2,344 |
| Queen. | G.T.R. | W.s. Kingston Rd.. | 16.6 | 6,832 |
| Spadina | King. | Queen | 16.6 | 1,187 |
| Yonge. | Queen | Carlton. | 16.6 | 3,238 |
| | | | | 37,332 |

NEW TRACK ALLOWANCE.

| Pavement Sq. yds. | Curb. Width Lin. in. | Curb. Length Lin. ft. | Curb. Class. | Completed. | Contractor. |
|---|---|---|---|---|---|
| 4,808 | | | | Oct. 7, 1909 | Day labor. |
| 7,950 | | | | July 29, 1909 | " |
| 5,612 | | | | Oct. 7, 1909 | " |
| 1,404 | | | | May 20, 1909 | " |
| 2,234 | | | | Apl. 22, 1909 | " |
| 870 | | | | Sept. 9, 1909 | " |
| 2,542 | | | | Nov. 18, 1909 | " |
| 7,512 | | | | Apl. 28, 1909 | " |
| 32,932 | | | | | |

TRACK ALLOWANCE RECONSTRUCTION.

| | | | | | |
|---|---|---|---|---|---|
| 5,056 | | | | Dec. 16, 1909 | Day labor. |
| 5,029 | | | | Apl. 29, 1909 | " |
| 13,281 | | | | Dec. 23, 1909 | " |
| 5,042 | | | | Sept. 2, 1909 | " |
| 9,332 | | | | Aug. 12, 1909 | " |
| 2,996 | | | | Nov. 4, 1909 | " |
| 2,772 | | | | July 22, 1909 | " |
| 4,297 | | | | Sept. 2, 1909 | " |
| 12,525 | | | | Sept. 9, 1909 | " |
| 2,176 | | | | Sept. 9, 1909 | " |
| 5,936 | | | | June 24, 1909 | " |
| 68,442 | | | | | |

INTERSECTIONS.

| Street. | From. | To. | Width Lin. ft. | Length Lin. ft. |
|---|---|---|---|---|
| Roncesvalles | Dundas and Boustead | | | |
| ¶ Roncesvalles | King and Queen | | | |
| ‖ Yonge and King | | | | |

¶ Includes area of curves into Roncesvalles Avenue car barns.
‖ Wooden blocks replaced by scoria blocks.

CONCRETE CURBS.

| Street. | From. | To. | Side. |
|---|---|---|---|
| Alhambra | Thorold, w.s. | Boustead | East |
| Alhambra | S.s. Radford | N.s. Thorold | West. |
| Barton | Brunswick | Howland | North |
| Borden | Lennox | Bloor | West. |
| Britain | George | Sherbourne | North |
| Brock | S.s. Middleton (prod.) | Dundas | West. |
| Brock | Bloor | 1,600 ft. south | West. |
| Booth | Queen | Eastern | West. |
| Carlow | Eastern | 1,034 ft. south | East |
| Clifford | Stafford | Stanley Park | South |
| Clarence Sq., n. and e. Branches. | Spadina | Wellington | N. & E. |
| Clarence Sq. | South, east, and north sides | | |
| Cecil | Henry | Beverley | North |
| Caer Howell | Simcoe | University | North |
| Dudley | Teraulay | East end | South |
| Dufferin | 416 ft. s. of Bloor | Muir | West. |
| Dupont | 700 ft. w. of Christie | Shaw | South |
| Dupont | 700 ft. w. of Christie | Shaw | North |
| Dermott Pl. | Spruce | Carlton | East |
| Dalhousie | Gould | Gerrard | East |
| Grace | 645 ft. s. of Bloor | 30 ft. further south | East |
| Grace | 300 ft. s. of Bloor | 345 ft. further south | West. |
| Glen Rd | Bridge | N.s. Highland | East |
| Gerrard | 1st Lane e. of Yonge | Jarvis | South |
| Gerrard | Yonge | Jarvis | North |
| Grace | 450 ft. s. of Bloor | 195 ft. further south | East |
| Hewitt | Roncesvalles | Indian Rd. | South |
| Harbord | Brunswick | Robert | South |
| Harrison | Ossington | Lakeview | North |

INTERSECTIONS.

| Pavement Sq. yds. | Curb. Width Lin. in. | Curb. Length Lin. ft. | Curb. Class. | Completed. | Contractor. |
|---|---|---|---|---|---|
| 1,393 | | | | Aug. 25, 1909 | Day labor. |
| 1,134 | | | | Sept. 9, 1909 | " |
| 411 | | | | June 24, 1909 | " |
| 2,938 | | | | | |

CONCRETE CURBS.

| Width Lin. in. | Length Lin. ft. | Completed. | Contractor. |
|---|---|---|---|
| 6 | 645.0 | June 21, 1909 | Warren Bituminous Paving Co. |
| 6 | 410.8 | June 21, 1909 | " " " |
| 6 | 257.3 | Sept. 28, 1909 | Day labor. |
| 6 | 462.5 | Sept. 25, 1909 | " |
| 6 | 759 0 | Oct. 8, 1909 | " |
| 6 | 1,401.8 | July 24, 1909 | Warren Bituminous Paving Co. |
| 6 | 1,041.0 | Sept. 1, 1909 | Day labor. |
| 6 | 951.5 | Sept. 2, 1909 | Barber Asphalt Paving Co. |
| 6 | 1,092.4 | Sept. 13, 1909 | " " " |
| 6 | 167.5 | Sept. 22, 1909 | Constructing and Paving Co. |
| 6 | 301.5 | June 2, 1909 | Godson Contracting Co. |
| 6 | 849·9 | May 1, 1909 | Day labor. Order of Council. |
| 6 | 264.0 | Nov. 20, 1909 | Godson Contracting Co. |
| 6 | 150.5 | Aug. 26, 1909 | Barber Asphalt Paving Co. |
| 6 | 150.0 | June 9, 1909 | Queen City Concrete Pav. Co. |
| 6 | 1,684.0 | Oct. 1, 1909 | John Maguire |
| 6 | 671.3 | July 24, 1909 | A. J. Penberthy. |
| 6 | 630.1 | July 31, 1909 | " |
| 6 | 415.0 | Nov. 1, 1909 | Queen City Concrete Pav. Co. |
| 6 | 577.0 | Sept. 30, 1909 | Day labor. |
| 6 | 30.0 | July 19, 1909 | William Bushell. |
| 6 | 337.0 | Aug. 26, 1909 | Day labor. |
| 6 | 337.0 | Nov. 11, 1909 | " |
| 6 | 716.0 | Carried over to 1910 | Grant Contracting Co. |
| 6 | 926.0 | Carried over to 1910 | " " |
| 6 | 195.0 | July 19, 1909 | William Bushell. |
| 6 | 1,035.3 | June 16, 1909 | Warren Bituminous Paving Co. |
| 6 | 453.5 | Aug. 6, 1909 | Constructing & Paving Co. |
| 6 | 421.0 | May 13, 1909 | A. J. Penberthy. |

CONCRETE CURBS—*Continued.*

| Street. | From. | To. | Side. |
|---|---|---|---|
| Howard Park | Indian Rd. | Indian Grove | North |
| Jerome | Dundas | W. City limits | South |
| Jerome | 267 ft. w. of Dundas | W. City limits | North |
| Kendall | Wells | E.s. Kendall (prod.) | West. |
| Lansdowne | Retaining wall inside | of walk at s.w., cor. | of Rideau |
| Lynd | College | Neepawa | East |
| Lennox | Palmerston | Manning | North |
| Lennox | Markham | Manning | South |
| Lennox | Bathurst | Markham | North |
| Margueretta | Dundas. | College. | West. |
| Margueretta | Dundas. | College. | East |
| Markham, n. | Olive. | Vermont | West. |
| Margueretta | 940 ft. n. of Bloor | 48 feet further north.. | East |
| Margueretta | 960 ft. n. of Bloor | 28 feet further north.. | West. |
| McCaul. | 121 ft n. of Queen | College. | East |
| McCaul. | Queen | St. Patrick | West. |
| McCaul. | Baldwin | College. | West. |
| McDougall's Lane | Queen | Farley | West. |
| Pelham Place and Binscarth Road | Glen Road | Schofield | North |
| Richmond | John. | Simcoe. | South |
| Radford | Alhambra | Indian Road | South |
| Riverdale. | Logan | Carlaw | South |
| Sarah and Roden Place. | Belmont | McMurrich | N. & W. |
| Sackville | Gerrard | Oak | West. |
| Sackville | Gerrard. | Oak | East |
| Summerhill. | 1,186 ft. e. of Yonge | Railway tracks | East |
| Shaw. | Halton. | Arthur. | West. |
| Shaftesbury. | Ottawa. | Summerhill. | South |
| Sackville | Gerrard. | Spruce. | West. |
| Trinity Square. | Yonge | 220 feet west | North |
| Victor | Broadview | Logan | North |
| Victor | Broadview | Logan | South |
| Van Horne | Dovercourt Road | Bartlett. | North |
| Van Horne | Westmoreland. | Bartlett. | South |
| Wells. | Brunswick | Kendal. | South. |
| Walton. | Yonge | Terauley | North |

SUMMARY :—

Total number of works, 65.

Total number day labor, 13 (inclusive of O. of C. works.)

Total number of O. of C. day labor, 3.

CONCRETE CURBS—*Continued.*

| Width Lm. in. | Length Lin. ft. | Completed. | Contractor. |
|---|---|---|---|
| 6 | 497.7 | May 21, 1909 | Ontario Concrete Paving Co. |
| 6 | 508.5 | Sept. 25, 1909 | Godson Contracting Co. |
| 6 | 235.5 | Sept, 25, 1909 | " " |
| 6 | 518.0 | June 23, 1909 | " " |
| 2—0.5 | 65 2 | Oct. 29, 1909 | Day labor. Order of Council. |
| 6 | 416.5 | June 24, 1909 | Warren Bituminous Paving Co. |
| 6 | 536.0 | Nov. 1, 1909 | Barber Asphalt Paving Co. |
| 6 | 800.0 | Nov. 9, 1909 | " " " |
| 6 | 276.4 | Oct. 29, 1909 | " " " |
| 6 | 535.0 | Aug. 3, 1909 | Godson Contracting Co. |
| 6 | 543.4 | Aug. 3, 1909 | " " " |
| 6 | 623.0 | June 22, 1909 | Constructing & Paving Co. |
| 6 | 50.0 | June 12, 1909 | " " " |
| 6 | 29.0 | June 12, 1909 | " " " |
| 6 | 3,062.0 | Aug. 5, 1909 | " " " |
| 6 | 1,459.0 | Aug. 25, 1909 | " " " |
| 6 | 1,066.0 | Aug. 31, 1909 | " " " |
| 6 | 216.8 | July 28, 1909 | A. Gardner & Co. |
| 6 | 934.0 | Oct. 15, 1909 | Warren Bituminous Paving Co. |
| 6 | 952.0 | May 7, 1909 | Grant Contracting Co. |
| 6 | 796.5 | Oct. 1, 1909 | Warren Bituminous Paving Co. |
| 6 | 668.5 | July 30, 1909 | Day labor. |
| 6 | 301.7 | Sept. 29, 1909 | " |
| 6 | 446.0 | Nov. 8, 1909 | E. H. Schoales. |
| 6 | 457.0 | Nov. 16, 1909 | " |
| 6 | 543.5 | Aug. 6, 1909 | Barber Asphalt Paving Co. |
| 6 | 340.0 | Oct. 30, 1909 | Constructing & Paving Co. |
| 6 | 578.6 | May 5, 1909 | Day labor, Order of Council. |
| 6 | 414.5 | Nov. 6, 1909 | Barber Asphalt Paving Co. |
| 6 | 222.5 | Nov. 4, 1909 | Godson Contracting Co. |
| 6 | 1,952.0 | Oct. 6, 1909 | York Concrete Paving Co. |
| 6 | 1,948.0 | Sept. 24, 1909 | " " " " |
| 6 | 956.6 | Oct. 15, 1909 | Constructing & Paving Co. |
| 6 | 665.7 | Oct. 15, 1909 | " " " |
| 6 | 309.5 | Nov. 4, 1909 | Day labor. |
| 6 | 716.0 | Oct. 5, 1909 | York Concrete Paving Co. |
| | 41,913.5 | | |

CONCRETE SIDEWALKS.

| Street. | From. | To. | Side. | Width in Feet. |
|---|---|---|---|---|
| Antler | Campbell | Perth | South | 5 |
| Archer | Cobourg | Brampton Place | East | 4 |
| Avenue Road | Farnham | St. Clair | East | 5 |
| Alhambra | Boustead | Thorold | East | 5 |
| Avenue Road | St. Clair | Lonsdale | East | 5 |
| Argyle | Gladstone | Northcote | North | 5 |
| Afton | 18¼ ft w. of Lisgar. | Northcote | South | 5 |
| Adelaide | 89 ft. w. of Simcoe. | John | South | 6 |
| Argyle | Lisgar | Northcote | North | 5 |
| Argyle | Shaw | Givens | South | 5 |
| Argyle | Lisgar | Dovercourt | North | 5 |
| Antler | Perth | Franklin | South | 5 |
| Ada | Wallace | South End | East | 4 |
| Albany | Barton | Wells | East | 5 |
| Albany | Hillcrest | Nina | West | 5 |
| Albany | s.s. Hillcrest | Nina | East | 5 |
| Ada | Wallace | South End | West | 4 |
| Bond | 85 ft. s. of Shuter | Queen | East | 6 |
| Bond | Gould | Wilton | West | 5 |
| Broadway Place | Spadina | West End | North | 4 |
| Bloor | Crawford | Shaw | South | 5 |
| Bloor | 70 ft. e. Dovercourt | Delaware | South | 5 |
| Bismarck | Yonge | Park Road | South | 5 |
| Balmoral | Warren | Poplar Plains | North | 5 |
| Bloor | Dufferin | Westmoreland | North | 5 |
| Brampton Place | Archer | East End | South | 4 |
| Breadalbane | Surrey Place | 154 ft. east | South | 5 |
| Birch | Yonge | Gange | South | 5 |
| Borden | Herrick | Lennox | West | 5 |
| Brighton | Pape | East End | North | 4 |
| Broadview | Queen | Eastern | East | 5 |
| Booth | Eastern | 1100 ft. south | East | 5 |
| Bain | Pape | Carlaw | North | 4 |
| Beatrice | 922 ft. n. College | 146 ft. fur. north | East | 4 |
| Brant | King | Adelaide | West | 5 |
| Bond | Shuter | Wilton | East | 5 |
| Brock | Bloor | North End | East | 4½ |
| Brock | Bloor | North End | West | 4½ |
| Bowman | Carlton | North End | West | 5 |
| Broadway Place | Spadina | 156 ft. west | South | 4 |
| Bloor | Clinton | 75 w. of Grace | South | 6 |
| Bell | River | 280 ft. east | South | 4 |
| Berkeley | King | Front | West | 6 |
| Brock | Florence | Railway Tracks | East | 5 |
| Brock | Queen | Noble | East | 5 |
| Boultbee | Jones | East End | North | 4½ |
| Baldwin | Kensington | Augusta | South | 5 |

## Concrete Sitewalks.

| Length in Feet. | Curb. Class. | Curb. Length in Feet. | Completed. | Contractor. |
|---|---|---|---|---|
| 563.5 | 5-in. concrete | 517.5 | May 19, 1909 | Crescent Con. Pav. Co. |
| 248.0 | " | 257.0 | June 15, 1909 | Grant Contracting Co. |
| 1,067.5 | | | June 18, 1909 | E. H. Schoales. |
| 596.2 | | | July 9, 1909 | " " |
| 1,464.7 | | | July 20, 1909 | Crescent Con. Pav. Co. |
| 307.5 | | | June 14, 1909 | Day labor. |
| 549.3 | 5-in. concrete | 517.3 | June 15, 1909 | " |
| 653.2 | | | Oct. 15, 1909 | W. R. Payne. |
| 551.7 | | | July 28, 1909 | Grant Contracting Co. |
| 264.6 | 5-in. concrete | 264.6 | July 3, 1909 | J. J. Thompson. |
| 318.0 | " | 8.0 | June 12, 1909 | A. Johnson. |
| 449.0 | | | Aug. 12, 1909 | Day labor order of Council |
| 481.0 | 6-in. concrete | 465.0 | Oct. 26, 1909 | William Bushell. |
| 752.6 | | | Aug. 7, 1909 | W. R Payne. |
| 536.0 | 6-in. concrete | 540.5 | Aug. 20, 1909 | Grant Contracting Co. |
| 539.8 | " | 539.8 | Aug. 17, 1909 | " " |
| 480.5 | " | 465.0 | Oct. 19, 1909 | William Bushell. |
| 480.6 | 5-in. " | 480.6 | May 26, 1909 | " " |
| 601.8 | " " | 572.5 | May 19, 1909 | " " |
| 559.1 | | | Aug. 7, 1909 | Day labor. |
| 315.3 | | | April 26, 1909 | Crescent Con. Pav. Co. |
| 216.5 | | | April 26, 1909 | " " " |
| 662 0 | | | May 7, 1909 | Day labor. |
| 642.8 | 5-in. concrete | 614.0 | June 22, 1909 | A. Gardner & Co. |
| 1,166 6 | | | April 27, 1909 | T. E. McMurray. |
| 153.1 | 5-in. concrete | 153 1 | May 11, 1909 | Crescent Con. Pav. Co. |
| 158.7 | " | 158.7 | July 3, 1909 | J. J. Thompson. |
| 394.5 | | | June 8, 1909 | Reeve Concrete Pav. Co. |
| 416.5 | 6-in. concrete | 404.0 | Aug. 21, 1909 | Excelsior Con. & Pav. Co. |
| 309.5 | | | May 29, 1909 | J. J. Thompson. |
| 946.9 | | | April 19, 1909 | Day labor. |
| 1,114.8 | 6-in. concrete | 1,125.3 | Aug. 4, 1909 | Grant Contracting Co. |
| 610.0 | | | June 12, 1909 | Day labor. |
| 147.0 | 5-in. concrete | 147.0 | July 20, 1909 | " |
| 431.5 | | | May 4, 1909 | " |
| 594.6 | 5-in. concrete | 572.0 | June 16, 1909 | Queen City Con. Pav. Co. |
| 993.7 | | | Sept. 29, 1909 | J. J. Thompson. |
| 993.5 | | | Oct. 4, 1909 | " |
| 234.3 | 5-in. concrete | 234.3 | June 8, 1909 | Queen City Con. Pav. Co. |
| 185.0 | | | July 28, 1909 | Day labor. |
| 477.6 | | | June 24, 1909 | A. Johnson. |
| 293.5 | 6-in. concrete | 306.0 | Oct. 4, 1909 | Queen City Con. Pav. Co. |
| 279.0 | | | Aug. 12, 1909 | " " " |
| 196.0 | | | Sept. 27, 1909 | Grant Contracting Co. |
| 273 2 | | | Sept. 27, 1909 | " " " |
| 664.7 | 6-in. concrete | 664.7 | July 13, 1909 | York Concrete Paving Co. |
| 316.8 | | | Oct. 9, 1909 | " " " |

CONCRETE SIDEWALKS—*Continued.*

| Street. | From. | To. | Side. | Width in Feet. |
|---|---|---|---|---|
| Bellefair | Queen | North City Limit | East | 4 |
| Broodview | 1039 ft. n. of Gerrard | 750 ft. further north | West | 6 |
| Bloor | Delaware | Dovercourt Rd. | North | 6 |
| Bowden | Hogarth | Danforth | East | 5 |
| Broadview | Danforth | 1789 f. n. of Gerrard | West | 6 |
| Baldwin | McCaul | Beverley | South | 5 |
| Balsam | Queen | Beach | West | 4 |
| Brooklyn | Queen | Dagmar | East | 5 |
| Badgerow | Pape | East End | North | 4 |
| Bain | Logan | Pape | South | 4 |
| Bloor | 75 ft. w. of Grace | 50 ft. further west | South | 6 |
| Centre Island | Ferry Dock | Pavilion | | 6 / 8 |
| Carlyle | St. Patrick | Bellevue | East | 4 |
| College | Lynd | Roncesvalles | North | 5 |
| Claremont | 87 ft. n. of Queen | Arthur | West | 5 |
| Castle Frank | Mackenzie | 468 ft. south | West | 4 |
| Chestnut | Agnes | Edward | West | 5 |
| Chicora | Avenue Rd. | 314½ ft. west | South | 5 |
| College | 278 ft. w. of Dovercourt Rd. | Rusholme Rd. | North | 5 |
| Chapel Lane | St. Joseph | St. Mary | West | 4 |
| Crawford | 665 ft. n. of Bloor | Thorne | West | 5 |
| College | Montrose | Ossington | North | 6 |
| Concord | College | Dewson | West | 5 |
| Concord | College | Dewson | East | 5 |
| College | Ossington | Dovercourt Rd. | North | 6 |
| College | Ossington | Dovercourt Rd. | South | 6 |
| College | Clinton | Ossington | South | 6 |
| Crawford | Bloor | 1,755 ft. south | West | 5 |
| Constance | Sunnyside | Indian Rd. | South | 5 |
| Constance | Sunnyside | Indian Rd. | North | 5 |
| College | Sunnyside | Indian Rd. | South | 5 |
| College | Sunnyside | Indian Rd. | North | 5 |
| College | Rusholme Rd. | Lansdowne | South | 6 |
| Charles | 600½ ft. e. of Yonge | Church | South | 5 |
| Claremont | Queen | Mansfield | East | 5 |
| Churchill | Lakeview | 187 ft. east | South | 5 |
| College | Sheridan | Dufferin | North | 5 |
| Cherry | Eastern | Front | West | 5 |
| College | 600 f. w. of Sorauren | Parkway | North | 5 |
| Callendar | Queen | North End | West | 5 |
| Cecil | Henry | Beverley | South | 4 |
| Concord | Dewson | Hepbourne | West | 5 |
| Crawford | Bloor | 1,755 feet south | East | 5 |
| §Duke | Jarvis | George | South | 10.4 |
| Dufferin | Trafalgar | Alma | East | 5 |

CONCRETE SIDEWALKS—*Continued.*

| Length in Feet. | Curb. | | Completed. | Contractor. |
|---|---|---|---|---|
| | Class. | Length in Feet. | | |
| 202.9 | 6-in. concrete ... | 219.2 | Aug. 28, 1909 | A. Johnson. |
| 792.0 | ..... .... | ..... | April 24, 1909 | Day labor, order of Council |
| 352.5 | ..... .... | ..... | July 10, 1909 | Day labor. |
| 1,116.4 | 6-in. concrete.... | 1.117.4 | Sept. 2, 1909 | Queen City Con. Pav. Co. |
| 2,259.9 | ..... | .. ..... | Aug. 7, 1909 | " " " |
| 603.2 | ..... | ..... | Oct. 8, 1909 | York Concrete Paving Co. |
| 1,095.0 | 6-in. concrete.... | 1,095.0 | July 26, 1909 | " " " |
| 1,396.2 | " .... | 1,383.2 | Oct. 16, 1909 | A. Johnson. |
| 584.0 | " ... | 581.5 | Nov. 11, 1909 | " |
| 1,288.9 | ..... | ..... | Sept. 25, 1909 | " |
| 50.0 | ..... ..... | ..... | June 24, 1909 | " |
| 187.0 | ..... ... . | ..... | May 19, 1909 | Day labor, order of Council |
| 819.4 | . ..... | ..... | May 19, 1909 | |
| 377.0 | 6-in. concrete.... | 371.5 | Nov. 30, 1909 | " " " |
| 278.5 | ..... | ..... | June 21, 1909 | T. E. McMurray. |
| 1,704.2 | 5-in. concrete.... | 1,681.2 | May 21, 1909 | Grant Contracting Co. |
| 439.6 | ..... .. ... | ..... | May 17, 1909 | Day labor. |
| 230.5 | .... ..... ..... | ..... | April 20, 1909 | A. Gardner & Co. |
| 318.4 | ..... | ..... | June 12, 1909 | " " |
| 154.0 | ..... ..... | .... ... | April 29, 1909 | Day labor. |
| 613.4 | ..... .. | .... .. | July 29, 1909 | Crescent Con. Pav. Co. |
| 356.4 | ..... .... | ..... | June 16, 1909 | Day labor. |
| 1,073.4 | 5-in. concrete.... | 126.5 | June 11, 1909 | Excelsior Con. & Pav. Co. |
| 908.0 | " .... | 908.0 | June 8, 1909 | A. Gardner & Co. |
| 898.0 | " .... | 908.0 | June 8, 1909 | " " |
| 914.0 | " .... | 113.0 | July 7, 1909 | Excelsior Con. & Pav. Co. |
| 822.8 | " .... | 23.4 | June 24, 1909 | " " " |
| 2,145.9 | ..... ..... | ..... | Sept. 3, 1909 | William Bushell |
| 1,688.5 | 6-in. concrete... | 1,688.5 | June 8, 1909 | T. E McMurray. |
| 452.1 | 5 " .... | 452.1 | July 14, 1909 | A. Gardner & Co. |
| 443.2 | 5 " . . | 443.2 | July 13, 1909 | " " |
| 514.2 | 6 " ... | 497.7 | Sept. 20, 1909 | William Bushell. |
| 514.2 | 6 " .... | 497.7 | Sept. 13, 1909 | " " |
| 3,028.8 | ..... | ..... | Sept. 7, 1909 | J. J. Thompson. |
| 338.0 | ..... .... | ..... | July 5, 1909 | Reeve Concrete Paving Co. |
| 2,678.5 | 6-in. concrete.... | 2,677.9 | Oct. 25, 1909 | Grant Contracting Co. |
| 190.4 | .... ..... | ..... | June 30, 1909 | Day labor. |
| 524.2 | ..... ..... | ..... | Oct. 9, 1909 | William Bushell. |
| 455.3 | 6-in. concrete.... | 462.0 | Oct. 27, 1909 | E. H. Schoales. |
| 370.5 | ..... | ..... | July 17, 1909 | W. R. Payne. |
| 655.0 | . ..... .... | ..... | Aug. 26, 1909 | Grant Contracting Co. |
| 276.2 | 6-in. concrete.... | 264.8 | July 30, 1909 | Day labor. |
| 1,022.5 | " | 1,026.0 | Aug. 12, 1909 | Grant Contracting Co. |
| 1,697.8 | " | 1,689.8 | Nov. 10, 1909 | Ontario Concrete Pav. Co. |
| 258.0 | ..... | ..... | June 18, 1909 | Day labor, order of Council. |
| 564.5 | 6-in. concrete.... | 587.5 | Sept. 4, 1909 | Grant Contracting Co. |

CONCRETE SIDEWALKS—*Continued.*

| Street. | From. | To. | Side. | Width in Feet. |
|---|---|---|---|---|
| Dalhousie | Wilton | Gould | West | 5 |
| Dalhousie | 143 ft. n. of Queen | Shuter | East | 5 |
| Dudley Place | Terauley | East end | South | 3 |
| Dalhousie | Queen | Shuter | West | 4 |
| Dorset | King | Wellington | West | 4 |
| Defoe | MacDonnell Square | Tecumseth | South | 5 |
| Dundas | 39½ ft. n. of Queen | 300 ft. s. of Humbert | West | 8 |
| Dupont | Spadina | Walmer Road | South | 5 |
| Dupont | 680 ft. w. of Christie | Shaw | North | 5 |
| Dupont | Christie | Shaw | South | 5 |
| Dufferin | Sylvan | Bloor | East | 5 |
| Duchess | Sherbourne | 100 ft. w. of Ontario | South | 5½ |
| Dovercourt Road | College | Shannon | East | 6 |
| Duke | Jarvis | George | South | 6.3 |
| Dalhousie | 136 ft. n. of Gould | Gerrard | West | 5 |
| Dufferin | Dundas | Trafalgar | East | 5 |
| Dovercourt Road | Dundas | St. Anne's Road | West | 5½ |
| Dovercourt Road | College | Bloor | West | 5 |
| Dewson | Ossington | Delaware | North | 5 |
| Dovercourt Road | Dundas | 146 ft. 6 in. north of Churchill. | East | 5½ |
| Duchess | Berkeley | Parliament | North | 6 |
| Delaware | Bloor | Hallam | West | 5 |
| Duke | Sherbourne | Princess | South | 5 |
| Dean | Wilton | North end | East | 4 |
| Delaney Crescent | Brock | Wyndham | N. & E. | 4½ |
| Delaney Crescent | Brock | Wyndham | S. & W. | 4½ |
| Danforth | Broadview | Pape | South | 5 |
| Dunvegan Road | St. Clair | Lonsdale | East | 5 |
| Dunvegan Road | 90 ft. s. of Heath | North City limit | West | 5 |
| Duke | Ontario | Berkeley | North | 5 |
| Eastern | St. Lawrence | 841 feet east | North | 4½ |
| Elizabeth | Elm | Edward | East | 6 |
| Edwin | Humberside | 210 feet south | West | 4 |
| Emerson | 130 ft. n. of Wallace | Lappin | East | 5 |
| Elizabeth | Walton | Hayter | East | 5 |
| Emerson | S.s. of Paton Road (Prod.) | Wallace | East | 5 |
| Eastern | Laing | Knox | South | 4 |
| Eastern | Laing | Knox | North | 4 |
| Englewood | Pape | Jones | South | 5 |
| Eastern | Logan | Morse | South | 5 |
| Empress Cres. | Dunn | 390 ft. east | South | 5 |
| Eastern | Carlaw | Morse | South | 5 |
| Elizabeth | 90 ft. n. of Elm | Hayter | West | 5 |
| Euclid | Bloor | Follis | East | 5 |
| Euclid | Arthur | Robinson | West | 5 |

CONCRETE SIDEWALKS—*Continued.*

| Length in Feet. | Curb. Class. | Curb. Length in Feet. | Completed. | Contractor. |
|---|---|---|---|---|
| 601.3 | 5-in. concrete .. | 583.0 | May 21, 1909 | Day labor. |
| 435.5 | " .... | 413.5 | May 31, 1909 | " |
| 150.0 | ..... .. . | ..... | June 9, 1909 | Queen City Con. Pav. Co. |
| 555.0 | ..... . ..... | ..... | May 28, 1909 | Day labor. |
| 403.0 | ..... .. ..... | ..... | April 22, 1909 | Grant Contracting Co. |
| 213.7 | ..... .... .... | ..... | May 5, 1909 | Day labor. |
| 223.4 | ..... | ..... | April 24, 1909 | W. R. Payne. |
| 288.0 | .. .. ..... | .... . . | May 25, 1909 | Crescent Con. Pav. Co. |
| 634.1 | ..... ..... | ... .... | July 31, 1909 | A. J. Penberthy. |
| 1,374.5 | ..... ..... | ... .... | July 24, 1909 | " " |
| 1,903.0 | 5-in. concrete.... | 1,899.0 | July 2, 1909 | Grant Contracting Co. |
| 506.8 | .... . ... .... | ..... | May 25, 1909 | " " " |
| 293.9 | 5-in. concrete.... | 23.0 | May 26, 1909 | " " " |
| 270.0 | .. .... ..... | .... | June 18, 1909 | Day labor. |
| 442 8 | 6-in. concrete.... | 436.0 | Aug. 18, 1909 | Queen City Con. Pav. Co. |
| 1,174.6 | " .... | 1,194.6 | Sept. 1, 1909 | Grant Contracting Co. |
| 564.5 | 5-in. " ... | 576.2 | June 18, 1909 | Crescent Con. Pav. Co. |
| 2,784.0 | " . .. | 93.5 | June 9, 1909 | Grant Contracting Co. |
| 591.0 | .... .... .... | ..... | June 23, 1909 | York Concrete Pav. Co. |
| 579.1 | 5-in. concrete... | 582.0 | June 18, 1909 | Crescent Con. Pav. Co. |
| 318.5 | ..... | ..... | Aug. 10, 1909 | Queen City Con. Pav. Co. |
| 2,153.9 | .... ..... | ..... | Aug. 11, 1909 | Crescent Con. Pav. Co. |
| 283.5 | ..... | ..... | July 5, 1909 | A. Johnson. |
| 214.2 | 6-in. concrete ... | 206.2 | Oct. 2, 1909 | Queen City Con. Pav. Co. |
| 833.5 | " .... | 846.0 | Sept. 28, 1909 | Grant Contracting Co. |
| 873.7 | " ... | 854.7 | Sept. 28, 1909 | " " " |
| 3,606.7 | ..... | .. . . | Aug. 6, 1909 | Excelsior Con. & Pav. Co. |
| 1,509.9 | ..... ..... | ..... | Sept. 10, 1909 | Day labor. |
| 1,023.9 | ..... ..... | ..... | Sept. 11, 1909 | " |
| 362.5 | ... . ..... | ..... | July 8, 1909 | Crescent Con. Pav. Co. |
| 716.7 | 5-in. concrete ... | 737.6 | June 8, 1909 | Wm. Bushell. |
| 309.3 | ... .... ... . | ..... | April 17, 1909 | A. Gardner & Co. |
| 248.5 | 5-in. concrete.... | 253.0 | May 8, 1909 | Wm. Bushell. |
| 759.3 | ..... .... | ..... | July 7, 1909 | Day labor. |
| 289.5 | ... . ..... | ..... | May 14, 1909 | " |
| 648.8 | ..... ..... . | ..... | May 6 1909 | Reeve Concrete Pav. Co. |
| 333.4 | .. ..... | .... ... | May 15, 1909 | Queen City Con. Pav. Co. |
| 345 6 | 5-in. concrete.... | 7.0 | May 17, 1909 | " " " |
| 1,282.2 | " .... | 278.5 | May 19, 1909 | Excelsior Con. & Pav. Co. |
| 295.4 | 6-in. " ... | 295.4 | Sept. 18, 1909 | A. Gardner & Co. |
| 399.2 | 5-in. " .... | 392.2 | May 15, 1909 | W. R. Payne. |
| 291.0 | .... .... .... | ..... | June 9, 1909 | A. Gardner & Co. |
| 603.0 | ..... .... | ..... . | July 12, 1909 | A. Johnson. |
| 1,554.8 | ... ..... | ..... | Sept. 30, 1909 | York Concrete Paving Co. |
| 1,162.4 | .... ..... | ..... | Nov. 5, 1909 | " " " |

CONCRETE SIDEWALKS—*Continued.*

| Street. | From. | To. | Side. | Width in Feet. |
|---|---|---|---|---|
| Erin | King | Front | East. | 3 |
| Eastern | Knox | Colina | North | 4 |
| Edgar | E. s. of Schofield (produced). | East Roxborough | North | 5 |
| Empress Cres. | Dunn | 390 ft. east | North | 5 |
| Edgar | Schofield | East Roxborough | South | 5 |
| Euclid | Arthur | Robinson | East. | 6 |
| Exhibition | Along Sea Wall | Boulevard | | 11.9 |
| Exhibition | Walks at Dufferin St. | Entrance | 7,146 s.f. | |
| Fernbank | Westmoreland | Salem | North | 5 |
| Funston | Sumach | 164½ ft. east | North | 4 |
| Frizzell | Pape | 680 ft. east | North | 5 |
| Follis | Palmerston | Manning | South | 5 |
| Frizzell | Pape | Kiswick | South | 5 |
| Fairview | Broadview | Bowden | North | 5 |
| Grace | 450 ft. s. of Bloor | 225 ft. further s. | East. | 5 |
| Galley | Sorauren | E. limit of lot No. 18 | South | 5 |
| Gerrard W. | Yonge | Terauley | South | 4 |
| Gough | Danforth | South end | East. | 4 |
| Gough | Danforth | South end | West. | 4 |
| Gladstone | Waterloo | Trafalgar | West. | 5 |
| Grace | Bloor | 450 ft. south | East. | 5 |
| Grace | Bloor | 300 ft, south | West. | 5 |
| Geoffrey | Sunnyside | Indian Rd | South | 5 |
| Geoffrey | Sunnyside | Indian Rd | North | 5 |
| Galley | Roncesvalles | Sunnyside | South | 5 |
| Garden | Roncesvalles | Sunnyside | North | 5 |
| Gladstone | College | 571 ft. south | West. | 5 |
| Galley | Roncesvalles | Sunnyside | North | 5 |
| Givens | College | Bloor | East. | 5 |
| Garden | Roncesvalles | Sunnyside | South | 5 |
| Grange | Spadina | 87 ft. east of Esther | South | 6 |
| Gladstone | Argyle | Cross | East. | 5 |
| Galt | 234 ft. s. of Gerrard | Dagmar | East. | 4 |
| Galley | Sorauren | 350 ft. east | South | 5 |
| Galley | Sorauren | Macdonnell | North | 5 |
| Grenville | 1st Lane w. of Yonge | Elizabeth | South | 6 |
| Glendale | Wright | S. limit of lot No. 28 | West | 5 |
| Glen Rd. | Binscarth | E Roxborough | West | 5 |
| Hambly | Queen | North City Limit | East | 5 |
| Hambly | Queen | North City Limit | West | 5 |
| Harrison | Ossington | Dovercourt Rd. | North | 5 |
| Humbert | Dundas | Dovercourt Rd. | North | 4 |
| Howard Park | Indian Rd. | Indian Grove | North | 5 |
| Humbert | Dundas | Brookfield | South | 4 |
| Herbert | Queen | North City Limit | West | 5 |
| Hurst Pl. | Homewood | East End | South | 3½ |

CONCRETE SIDEWALKS—*Continued.*

| Length in Feet. | Curb. Class. | Curb. Length in Feet. | Completed. | Contractor. |
|---|---|---|---|---|
| 529.0 | 6-in. concrete ... | 554.8 | Sept. 28, 1909 | Queen City Con. Pav. Co. |
| 416.3 | ..... .. | ..... | June 8, 1909 | T. E. McMurray. |
| 921.8 | ..... .... | ..... | Oct 13, 1909 | Day labor. |
| 400.0 | 5-in. concrete.... | 393.0 | May 21, 1909 | Constructing & Pav. Co. |
| 1,019.5 | .. ..... | ..... | Nov. 17, 1909 | Day labor. |
| 1,289.5 | ..... .... | ..... | Nov. 27, 1909 | Day labor, order of council |
| 601.8 | ..... | ..... | June 29, 1909 | " " " |
| .... .... | ..... | ... .... | Aug. 24, 1909 | " " " |
| 292.3 | 6-in. concrete.... | 282.2 | Aug. 5, 1909 | Grant Contracting Co. |
| 179.6 | " .... | 166.6 | Sept. 7, 1909 | " " |
| 661.8 | " .... | 660.0 | Aug. 25, 1909 | Excelsior Con. & Pav. Co. |
| 612.8 | " .... | 605.5 | Nov. 1, 1909 | York Concrete & Pav. Co. |
| 649.0 | " .... | 659.5 | Aug. 25, 1909 | Excelsior Con & Pav. Co. |
| 1,103.2 | " .... | 1,110.4 | Aug. 27, 1909 | " " " |
| 225.6 | .. ..... | ..... | July 19, 1909 | William Busheil. |
| 194.9 | 5-in. concrete... | 182.1 | May 14, 1909 | Reeve Concrete Pav. Co. |
| 703.2 | ..... | ..... | April 22, 1909 | A. J. Penberthy. |
| 404.0 | 5-in. concrete.... | 404.0 | May 3, 1909 | Excelsior Con. & Pav. Co. |
| 404.0 | " .... | 404.0 | May 5, 1909 | " " " |
| 294.0 | ..... ..... | ..... | June 14, 1909 | Day labor. |
| 477.0 | 5-in. concrete.... | 465.9 | July 19, 1909 | William Bushell. |
| 329.8 | " .... | 325.3 | July 2, 1909 | " |
| 518.1 | 6-in. concrete.... | 504.1 | Nov. 3, 1909 | Grant Contracting Co. |
| 598.2 | " .... | 586.2 | Oct. 29, 1909 | " " |
| 529.8 | 5-in. concrete.... | 529 8 | June 19, 1909 | T. E. McMurray. |
| 537.8 | " .... | 537.8 | July 9, 1909 | John Maguire. |
| 573.0 | ..... .... | ..... | Sept. 9, 1909 | J. J. Thompson. |
| 531.3 | 5-in. concrete.... | 531.3 | July 14, 1909 | Day labor. |
| 2,713.2 | .... . .... .... | .. .... | Oct. 22, 1909 | A. Gardner & Co. |
| 536.5 | 6-in. concrete.... | 536.5 | June 18, 1909 | William Bushell. |
| 744.8 | ..... | ..... | Aug. 7, 1909 | Day labor. |
| 726.0 | ..... | .. ... | Aug. 27, 1909 | W. R. Payne. |
| 671.3 | 6-in. concrete.... | 655.3 | Aug. 5, 1909 | York Concrete Paving Co. |
| 364.0 | 5-in. " .... | 364.0 | June 12, 1909 | Day labor, order of Council |
| 806.5 | 5-in. concrete.... | 813.5 | June 12, 1909 | " " " |
| 980.0 | ..... | ..... | Nov. 1, 1909 | A. Gardner & Co |
| 349.7 | 6-in. concrete.... | 349.7 | Nov. 15, 1909 | Grant Contracting Co. |
| 389.5 | .... ..... | ..... | Nov. 12, 1909 | Day labor. |
| 205.0 | 6-in. concrete.... | 212.0 | Sept. 15, 1909 | Queen City Con. Pav. Co. |
| 205.0 | " .... | 212.0 | Sept. 15, 1909 | " " " |
| 461.0 | ..... | ..... | May 13, 1909 | A. J. Penberthy. |
| 925.1 | 5-in. concrete.... | 925.1 | May 11, 1909 | Grant Contracting Co. |
| 489.7 | ..... .... | ..... | May 21, 1909 | Ontario Concrete Pav. Co. |
| 286.7 | 5-in. concrete.... | 287.5 | May 12, 1909 | Grant Contracting Co. |
| 203.7 | 6-in. " ... | 218.7 | Aug. 31, 1909 | " " " |
| 152.8 | 5-in. " .... | 152.8 | June 18, 1909 | Day labor. |

CONCRETE SIDEWALKS—*Continued.*

| Street. | From. | To. | Side. | Width in Feet. |
|---|---|---|---|---|
| High Park Boulevard | Roncesvalles | Keele | North | 6 |
| Herrick | Markham | Euclid | North | 5 |
| Herrick | Markham | Euclid | South | 5 |
| Hepbourne | Ossington | Dovercourt Rd. | South | 5 |
| Huron | St Patrick | 1st Lane north | West | 5½ |
| Hastings | Queen | Doel | East | 4 |
| Havelock | Opposite Dufferin | Grove | West | 5 |
| Highland | Schofield | 360 ft. west | South | 5 |
| Hallam | Ossington | Dovercourt Rd. | North | 5 |
| High Park Ave. | Roncesvalles | 236 ft. east | S. & E. | 5 |
| Hammersmith | Queen | North City Limit | East | 4 |
| Indian Rd. | Geoffrey | Howard Park | East | 5 |
| Irwin | Yonge | Chapel Lane | South | 4 |
| Irwin | Yonge | Chapel Lane | North | 4 |
| Jackes | Yonge | East End | South | 5 |
| Jackes | Yonge | East End | North | 5 |
| Jones | Queen | Gerrard | East | 5 |
| Kenilworth | 400 ft. s. of Queen | 438 ft. further south | West | 5 |
| King | Strachan | Massey | North | 6 |
| Kintyre | Munro | Hamilton | North | 4 |
| Kippendavie | Queen | Beach | East | 5 |
| King | Opposite Stanley | Park | North | 6 |
| King | Jarvis | West Market | South | 16 |
| King | Jefferson | Fraser | South | 6 |
| Lappin | Dufferin | Lansdowne | South | 5 |
| Lansdowne | Dundas | Bloor | West | 5 |
| Logan | Queen | Eastern | West | 5 |
| Laing | Queen | Eastern | West | 5 |
| Lewis | Queen | Eastern | East | 5 |
| Lindsay | Dufferin | Brock | South | 4 |
| Lansdowne | Lappin | Wallace | West | 5 |
| Logan | Queen | 1,957 ft. south | East | 5 |
| Lansdowne | College | Bloor | East | 5 |
| Lansdowne | Royce | North City limit | East | 5 |
| Lisgar | Queen | N.s. of Afton | East | 5 |
| Lansdowne | Bloor | Wallace | East | 5 |
| Lonsdale | Avenue Road | 610 feet east | North | 5 |
| Lynd and Parkway | 598 ft. s. of Dundas on Lynd | 862 ft. s. of Dundas on Parkway. | E.s. of Lynd. / W.s. of Parkway | 5 |
| Lynwood | Poplar Plains | Avenue Road | North | 5 |
| Lynwood | Poplar Plains | Avenue Road | South | 5 |
| Lynwood | Poplar Plains | Warren Road | North | 5 |
| Lynwood | Poplar Plains | Warren Road | South | 5 |
| Lakeside (Hanlan's Point) | End of Ferry Co.'s walk. | 813 feet south | ..... | 7-14 |

CONCRETE SIDEWALKS—*Continued.*

| Length in Feet. | Curb. Class. | Curb. Length in Feet. | Completed. | Contractor. |
|---|---|---|---|---|
| 1,765.2 | ..... | ..... | May 14, 1909 | E. H. Schoales. |
| 600.2 | 5-in. concrete.... | 528.2 | June 7, 1909 | W. R. Payne. |
| 600.2 | " .... | 528 2 | June 7, 1909 | " " |
| 860.8 | ..... | ..... | Sept. 17, 1909 | J. J. Thompson. |
| 164.0 | ..... | ..... | June 30, 1909 | Crescent Con. Pav. Co. |
| 1,284.0 | 5-in. concrete.... | 1,280.2 | Aug. 13, 1909 | York Concrete Paving Co. |
| 452.0 | ..... | ..... | April 28, 1909 | Day labor, order of Council |
| 389.8 | ..... | ..... | June 29, 1909 | Day labor. |
| 903.7 | ..... .... | ..... | Nov. 3, 1909 | William Bushell. |
| 127.2 | 6-in. concrete..... | 124.0 | Sept. 9, 1909 | Day labor. |
| 202.0 | " .... | 209.8 | Oct. 29, 1909 | A. Johnson. |
| 1,226.2 | " .... | 1,253.2 | Oct. 6, 1909 | William Bushell. |
| 504.9 | 5-in. " . .. | 513.0 | June 14, 1909 | Reeve Concrete Pav. Co. |
| 629.9 | " .... | 641.0 | June 19, 1909 | " " " |
| 668.0 | 6-in. concrete.... | 668.0 | Oct. 8, 1909 | Grant Contracting Co. |
| 666.0 | " .... | 666.0 | Oct. 8, 1909 | " " " |
| 2,454.8 | ..... | ..... .. | May 31, 1909 | Queen City Con. Pav. Co. |
| 438.7 | 5-in. concrete.... | 438.7 | May 28, 1909 | Excelsior Con. & Pav. Co. |
| 193.7 | .... | ..... | April 17, 1909 | Crescent Con. Pav. Co. |
| 203.0 | ..... | ..... . | June 3, 1909 | Constructing & Pav. Co. |
| 1,446.6 | 5-in. concrete.... | 1,428.8 | Aug. 23, 1909 | York Concrete Paving Co. |
| 327.0 | ..... | ..... . | May 3, 1909 | Day labor, order of Council |
| 161.0 | ..... | ..... | July 7, 1909 | Excelsior Con. & Pav. Co. |
| 652.0 | ..... | .... ... | Oct. 5, 1909 | Day labor, order of Council |
| 2,051.4 | 5-in. concrete.... | 2,051.7 | June 7, 1909 | E. H. Schoales. |
| 2,810.9 | " .... | 76.9 | May 19, 1909 | T. E. McMurray. |
| 936.7 | ..... | ..... | Sept. 1, 1909 | A. Gardner & Co. |
| 588.7 | 6 in. concrete.... | 583.2 | Oct. 22, 1909 | Queen City Con. Pav. Co. |
| 924.0 | .. ..... | ..... | Aug. 21, 1909 | A. Gardner & Co. |
| 960.0 | 5-in. concrete.... | 27.0 | April 19, 1909 | T. E. McMurray. |
| 869.0 | ..... ..... | ... .... | June 15, 1909 | Grant Contracting Co. |
| 1,858.0 | ..... ..... | ..... | Sept. 15, 1909 | A. Gardner & Co. |
| 2,654.0 | 5-in. concrete. .. | 2,648.0 | June 3, 1909 | Crescent Con. Pav. Co. |
| 247.0 | 5-in. " .... | 247.0 | June 5, 1909 | Day labor. |
| 1,466.9 | 5-in. " .... | 1,444.4 | June 14, 1909 | J. J. Thompson. |
| 1,460.5 | ..... ..... | ..... | May 19, 1909 | Crescent Con. Pav. Co. |
| 580.0 | ..... .. .... | .... ... | June 18, 1909 | Ontario Concrete Pav. Co. |
| 558.0 | ..... . | ..... | July 17, 1909 | Day labor. |
| 613.5 | ..... | ..... | June 30, 1909 | E. H. Schoales. |
| 614.0 | ..... | ..... | June 30, 1909 | " " |
| 631.0 | ..... | ..... | Nov. 4, 1909 | Day labor. |
| 632.0 | ..... | ..... | Nov. 6, 1909 | " |
| 831.6 | ..... ..... | .... ... | May 8, 1909 | Day labor, order of Council. |

CONCRETE SIDEWALKS—*Continued.*

| Street. | From. | To. | Side. | Width in Feet |
|---|---|---|---|---|
| Lonsdale | Oriole | Lawton | South | 5 |
| Lansdowne Ave. | Subway | | West | 5 |
| Lansdowne Ave. | Subway | | East | 5 |
| Lansdowne, w.s., and | Ridean, s.s., on Sub | way approaches | | 5 |
| Millicent | Dufferin | Emerson | South | 4 |
| Millstone Lane | 94 ft. e. of York | 348 feet further east | North | 4 |
| Markham | Harbord | Herrick | East | 5 |
| Myrtle | Jones | Leslie | North | 4 |
| Markham | Lennox | Bloor | East | 5 |
| Manning | Bloor | Follis | East | 5 |
| Muir | Brock | Sheridan | North | 4 |
| Marmaduke | Sunnyside | Indian Road | North | 5 |
| Marmaduke | Sunnyside | Indian Road | South | 5 |
| Manchester | Ossington | Shaw | North | 4 |
| Manchester | Ossington | Shaw | South | 4 |
| Montrose | Bloor | 1,000 feet south | West | 5 |
| Millicent | Emerson | 128½ feet east | North | 4 |
| Middleton | Sheridan | Brock | South | 5 |
| Mechanics | Delaney Crescent | Wyndham | East | 4 |
| Morton Road | Gerrard | 300 feet north | East | 4 |
| Marjory | 434 ft. s. of Gerrard | 220 feet further s. | East | 5 |
| Manning | Follis | Olive | East | 5 |
| Mohawk (Island) | Iroquois | 179 feet south | Centre | 6 |
| May | 237 ft. s. of Annette | South end | East | 4½ |
| Miscellaneous, opposite Public Buildings, | | area, 3,386 sq. yds. | | |
| S. branch of McDonnell Square. | Bathurst | West end | North | 5 |
| W. branch of McDonnell Square. | S. branch of McDonnell Square. | N. branch of McDonnell Square. | East | 5 |
| S. & w. branches of McDonnell Square. | Bathurst | Defoe | S. & W. | 5 |
| McKenzie Cres. | Dovercourt Rd. | North Lisgar | E. & N. | 4 |
| McKenzie Cres. | Dovercourt Rd. | North Lisgar | W. & S. | 4 |
| North Branch of McDonnell Square | Bathurst | 403 feet west | North | 5 |
| Natalie | Carlaw | W. s. Verral (prod.) | North | 4 |
| Natalie | Logan | W. s. Verral (prod.) | North | 4 |
| Noble | Queen | Brock | W. & S | 4 |
| Noble | Brock | Stickland Pl. | North | 4 |
| Northcote | Queen | Afton | West | 5 |
| Nina | Bathurst | Albany | South | 5 |
| Natalie | Logan | Booth | South | 5 |
| Ontario | Wellesley | Howard | West | 5 |
| Olive | Bathurst | Palmerston | North | 5 |
| Ontario | King | Duke | West | 5 |
| Pricefield | N.w. limit of Lot No. 23. | 608 feet west | North | 4-6 |

CONCRETE SIDEWALKS—*Continued.*

| Length in Feet. | Curb. Class. | Curb. Length in Feet. | Completed. | Contractor. |
|---|---|---|---|---|
| 1,485.0 | 6-in. concrete.... | 1,489.5 | Nov. 16, 1909 | Grant Contracting Co. |
| 910.0 | ..... ..... | ... .... | Oct. 29, 1909 | Day labor, order of Council. |
| 980.0 | ..... | ..... | Oct. 29, 1909 | " " " |
| 247.0 | ..... | .... .. | Oct. 29, 1909 | " " " |
| 1,407.8 | 5-in. concrete... | 1,390.8 | May 1, 1909 | E. H. Schoales. |
| 346.0 | ..... | ..... | May 27, 1909 | Crescent Con. Pav. Co. |
| 408.1 | .. ..... | ..... | May 12, 1909 | Grant Contracting Co. |
| 653.0 | 5-in. concrete.... | 637.0 | June 10, 1909 | J. J. Thompson. |
| 454.0 | ..... ..... | ..... | June 19, 1909 | Day labor. |
| 1,603.0 | ... ..... ... | ..... | Oct. 29, 1909 | York Concrete Pav. Co. |
| 457.0 | 6-in. concrete.... | 25.0 | Oct. 6, 1909 | Day labor. |
| 426.5 | 6-in. " .... | 411.0 | Sept. 27, 1909 | Grant Contracting Co. |
| 433.8 | 6-in. " .... | 417.3 | Sept. 22, 1909 | " " " |
| 642.0 | 5-in. " .... | 29.5 | June 15, 1909 | York Concrete Pav. Co. |
| 643.0 | 5-in. " .... | 29.5 | June 15, 1909 | " " " |
| 1,000.8 | ..... | ... . | July 2, 1909 | Grant Contracting Co. |
| 127.0 | 6-in. concrete.... | 127.0 | July 8, 1909 | Day labor |
| 448.2 | 6-in. " .... | 448.2 | July 27, 1909 | Grant Contracting Co. |
| 405.2 | .... ..... | ..... | Sept. 27, 1909 | " " " |
| 298.8 | 6-in. concrete.... | 298.8 | Oct. 20, 1909 | A. Johnson. |
| 224.0 | 6-in. " .... | 224.0 | Sept. 15, 1909 | Day labor. |
| 233.0 | ..... ..... | ..... | Oct. 28, 1909 | York Concrete Pav. Co. |
| 196.6 | ..... | ..... | May 10, 1909 | Day labor. |
| 620.0 | 6-in. concrete.... | 620 0 | Nov. 29, 1909 | William Bushell. |
| ..... | ..... ..... | ..... | .. ..... | Day labor. |
| 336.7 | 5-in. concrete.... | 325.5 | April 16, 1909 | Excelsior Con. & Pav. Co. |
| 226.0 | 5-in. " .... | 263.0 | April 22, 1909 | " " " |
| 552.2 | 5-in. " .... | 514.2 | April 20, 1909 | " " " |
| 755.6 | 6-in. concrete.... | 755.6 | July 21, 1909 | Grant Contracting Co. |
| 751.0 | 6-in. " .... | 751.0 | July 17, 1909 | " " |
| 399.5 | 5-in. " .... | 394.5 | April 26, 1909 | Excelsior Con. & Pav. Co. |
| 209.2 | 6-in. " .... | 194 2 | Sept. 17, 1909 | Day labor. |
| 425.0 | 6-in. " .... | 428.5 | Oct. 15, 1909 | Queen City Con. Pav. Co. |
| 971.4 | 6-in. " .... | 960.9 | Sept. 16, 1909 | Grant Contracting Co. |
| 421.7 | 6-in. " .... | 424.9 | Sept. 16, 1909 | " " |
| 1,415.9 | .... ..... .... | ..... | Sept. 27, 1909 | A. Gardner & Co. |
| 249 5 | 6-in. concrete ... | 249.5 | Aug. 23, 1909 | Grant Contracting Co. |
| 275.8 | 5-in. " .... | 240.8 | June 15, 1909 | Day labor. |
| 1,335.1 | ..... .... .... | ..... | May 4, 1909 | Queen City Con. Pav. Co. |
| 590.5 | ..... ... . .. | . ..... | July 24, 1909 | Crescent Con. Pav. Co. |
| 280.4 | ..... ..... | ..... | June 28, 1909 | A Johnson. |
| 607.0 | ..... | ..... | July 19, 1909 | Reeve Concrete Pav. Co. |

CONCRETE SIDEWALKS—*Continued.*

| Street. | From. | To. | Side. | Width in Feet. |
|---|---|---|---|---|
| Perth | Bloor | South end | East | 4 |
| Parkman | Perth | West end | North | 4 |
| Pine Hill Rd | Rosedale Rd | 129 feet west | West | 4 |
| Palmerston | Arthur | College | West | 5 |
| Phipps | St Vincent | St. Nicholas | South | 4 |
| Pearl | York | West limit of No. 20 | North | 6 |
| Palmerston | Barton | N.s. of Palmerston Square | East | 5 |
| Palmerston | Follis | Olive | East | 5 |
| Parliament | Front | Derby | East | 6 |
| Princess | King | Duke | West | 5 |
| Palmerston Ave. and Palmerston Square, | Barton then west 124½ feet | Palmerston Square and south 42 feet | West, N. & W. | 5 |
| Pine | Beach | East City Limit | South | 4 |
| Queen | Lee | East City Limit | North | 5 |
| Queen | Leslie | W.s. Greenwoods (prod.) | South | 5 |
| Queen | Woodbine | E.s. Kingston Road (prod.) | South | 5 |
| Russell Hill Rd | N. s. of Clarendon (prod.) | St. Clair | West | 5 |
| Robert | College | Willcox | East | 5 |
| Ryerson | Wolseley | St. Patrick | West | 5 |
| Ryerson | Wolseley | St. Patrick | East | 5 |
| Richmond | John | Simcoe | South | 6 |
| Russett | 987 ft. n. of Bloor. | 311 ft. further north | West | 4 |
| Rowanwood | Yonge | 429 ft. east | South | 4 |
| River | Queen | Gerrard | West | 5 |
| Royce | Symington | Tracks | North | 5 |
| Royce | Perth | Tracks | South | 5 |
| Roncesvalles | Queen | Howard Park | West. | 5 |
| Radford | Alhambra. | Indian Road | North | 5 |
| Reynolds | Collier | 136 feet north. | West. | 4 |
| Reynolds | Collier | 145 feet north. | East | 4 |
| Royce | Campbell. | Tracks | North | 5 |
| Rowanwood | Cluny | Scarth | North | 4½ |
| Royce | Symington | Lansdowne | South | 5 |
| Roxborough, E | Yonge | Cluny | South | 5 |
| Roxborough, E | Schofield | Edgar | North | 5 |
| Reservoir Steps | | | | 8 |
| Rideau | Lansdowne | Macdonnell. | North | 4½ |
| *Roxborough, E. | Schofield | Glen Road | South | 5 |
| St. Clair | Avenue Road | East City limit | North | 5 |
| St. Patrick. | Denison | 115 feet east | South | 6 |
| St. Nicholas | St. Mary | Charles west | East | 4 |
| St. James | Ontario. | Rose | North | 5 |

CONCRETE SIDEWALKS—*Continued.*

| Length in Feet. | Curb. | | Completed. | Contractor. |
|---|---|---|---|---|
| | Class. | Length in Feet. | | |
| 895.0 | | | May 4, 1909 | J. J. Thompson. |
| 309.4 | 5-in. concrete | 295.6 | May 6, 1909 | William Bushell. |
| 133.3 | | | June 16, 1909 | Day labor. |
| 1,479.6 | | | May 6, 1909 | A. Gardner & Co. |
| 434.0 | | | April 27, 1909 | A. J. Penberthy. |
| 209.5 | | | Aug. 12, 1909 | Crescent Con. Pav. Co. |
| 116.2 | | | July 26, 1909 | " " |
| 239.5 | | | July 26, 1909 | " " |
| 218.4 | | | Sept. 29, 1909 | Queen City Con. Pav. Co. |
| 283.0 | 6-in. concrete | 268.0 | Sept. 23, 1909 | Excelsior Con. & Pav. Co. |
| 257.0 | | | July 28, 1909 | Crescent Con. Pav. Co. |
| 331.5 | 6-in. concrete | 336.0 | Nov. 20, 1909 | A. Johnson. |
| 1,797.9 | 5-in. " | 37.5 | April 28, 1909 | Queen City Con. Pav. Co. |
| 1,235.3 | | | May 25, 1909 | A. J. Penberthy. |
| 1,876.5 | | | Aug. 23, 1909 | A. Johnson. |
| 1,004.0 | | | June 12, 1909 | Ontario Concrete Pav. Co. |
| 1,111.9 | | | May 12, 1909 | Crescent Con. Pav. Co. |
| 1,186.9 | | | April 27, 1909 | Constructing & Pav. Co. |
| 1,110.1 | | | May 5, 1909 | " " |
| 791.6 | | | July 13, 1909 | Crescent Con. Pav. Co. |
| 311.1 | 5-in. concrete | 311.1 | July 12, 1909 | Reeve Con. Pav. Co. |
| 428.6 | | | June 8, 1909 | Grant Contracting Co. |
| 2,308.8 | 6-in. concrete | 2,373.1 | Sept. 13, 1909 | York Concrete Pav. Co. |
| 1,509.5 | | | May 8, 1909 | W. R. Payne. |
| 1,195.6 | | | Aug. 10, 1909 | A. Gardner & Co. |
| 3,731.4 | 5-in. concrete | 36.0 | May 18, 1909 | Ontario Concrete Pav. Co. |
| 812.0 | 6-in. " | 812.0 | Sept. 8, 1909 | Excelsior Con. Pav. Co. |
| 140.7 | | | July 22, 1909 | Reeve Concrete Pav. Co. |
| 165.0 | | | July 24, 1909 | " " " |
| 352.2 | | | June 24, 1909 | William Bushell. |
| 550.7 | | | July 29, 1909 | Constructing & Pav. Co. |
| 1,066.0 | | | Aug. 10, 1909 | A. Gardner & Co. |
| 894.0 | | | Oct. 29, 1909 | Day labor, order of Council |
| 1,000.0 | | | Nov. 16, 1909 | " |
| 25.0 | 12-in. concrete | 50.0 | Aug. 3, 1909 | " order of Council |
| 292.3 | 6-in. " | 274 3 | July 13, 1909 | " " " |
| 470.2 | | | Carried over to 1910. | " |
| 608.8 | | | June 4, 1909 | Crescent Con. Pav. Co. |
| 116.5 | | | May 7, 1909 | A. Gardner & Co. |
| 236.5 | | | April 30, 1909 | A. J. Penberthy. |
| 306.5 | | | May 5, 1909 | Queen City Con. Pav. Co. |

CONCRETE SIDEWALKS—*Continued.*

| Street. | From. | To. | Side. | Width in Feet. |
|---|---|---|---|---|
| St. James | Ontario | Rose | South | 5 |
| St. Joseph | 653 feet west of St. Vincent. | Queen's Park | South | 6 |
| St. Joseph | Yonge | St. Nicholas | South | 7 |
| St. Clair | Avenue Road | Warren Road | South | 5 |
| St. Helens | Dundas | Dublin | West | 4½ |
| St. Patrick | Opposite Ryerson | School | South | 6 |
| Smith | Pape | Belford | South | 5 |
| Schiller | Poplar Plains | Warren Road | North | 5 |
| Surrey Place | Grenville | Grosvenor | East | 5 |
| Sumach | Spruce | Carlton | West | 5 |
| Symington | Wallace | Royce | East | 5 |
| Symington | Wallace | Royce | West | 5 |
| Shaw | College | Bloor | East | 5 |
| Shaftesbury | Yonge | E.s. Ottawa | North | 5 |
| Shaftesbury | E.s. Ottawa | Summerhill | North | 5 |
| Schiller | Warren Road | Russell Hill Road | North | 5 |
| Sackville | Winchester | Salisbury | East | 5 |
| Sumach | Wilton | Gerrard | West | 5 |
| Sheppard | Richmond | Adelaide | West | 6 |
| Sarah | Belmont | S.s. Roden Place (Prod.) | East | 4 |
| Sultan | St. Thomas | East end | South | 4 |
| Simcoe | Front | S.s. Station | West | 10 |
| Sheridan | Muir | College | West | 4 |
| Sheridan | Muir | College | East | 4 |
| Sackville | Spruce | Carlton | East | 5 |
| Scollard | 1st Lane west of Yonge. | Hazleton | North | 5 |
| Sultan | St. Thomas | East end | North | 4 |
| Springhurst | 426 ft. w. of Dufferin | Spencer | South | 5 |
| Scollard | Yonge | Hazleton | South | 4¾ |
| Scarth Road | Chestnut Park | Rowanwood | West | 4½ |
| Sunnyside | Wright | Howard Park | West | 5 |
| Sunnyside | Wright | Howard Park | East | 5 |
| Starr | Empress Crescent | Dunn | W. & S. | 5 |
| Sackville Place | Sackville | 460 feet east | North | 4 |
| Sully Crescent | Montrose | Shaw | North | 4 |
| Sully Crescent | Montrose | Shaw | South | 4 |
| Sussex | Borden | Brunswick | North | 5 |
| Sussex | Borden | Brunswick | South | 5 |
| Strachan | 73½ ft. s. of Queen | King | West | 5 |
| Sunnyside | Queen | Garden | East | 5 |
| Sackville | Gerrard | Oak | West | 5 |
| Sackville | Gerrard | Oak | East | 5 |

CONCRETE SIDEWALKS—*Continued.*

| Length in Feet. | Curb. Class. | Curb. Length in Feet. | Completed. | Contractor. |
|---|---|---|---|---|
| 294.7 | ..... | ..... | May 6, 1909 | Queen City Con. Pav. Co. |
| 272.0 | ..... | ..... | Aug. 11, 1909 | Grant Contracting Co. |
| | ..... ... | ..... | May 4, 1909 | Day labor. |
| 197.0 | | | | |
| 1,291.3 | 6-in. concrete. .. | 1,259.0 | Oct. 5, 1909 | " |
| 1,726.5 | ..... | ... ... | July 2, 1909 | A. Gardner & Co. |
| 227.3 | 5-in. concrete.... | 227.3 | May 8, 1909 | Day labor, order of Council |
| 513.5 | 6-in. " .... | 497.7 | Sept. 16, 1909 | Excelsior Con. & Pav. Co. |
| 662.2 | .... .... ..... | ..... | June 18, 1909 | " " " |
| 310.8 | 5-in. concrete.... | 289.2 | May 18, 1909 | T. E. McMurray. |
| 452.0 | 5-in. " .... | 47.3 | April 22, 1909 | Crescent Con. Pav. Co. |
| 1,624.0 | ..... ... .... | ..... | April 22, 1909 | William Bushell. |
| 1,626.0 | ... ..... .... | ..... | May 3, 1909 | " " |
| 2,750.0 | ..... | ..... | May 4, 1909 | Grant Contracting Co. |
| 932.0 | ..... | ..... | June 1, 1909 | Reeve Concrete Pav. Co. |
| 592.0 | 5-in. concrete.... | 596.5 | June 1, 1909 | " " " |
| 393.7 | ..... | .... ... | June 21, 1909 | Crescent Con. Pav. Co. |
| 234.5 | ..... | ..... | May 7, 1909 | Queen City Con. Pav. Co. |
| 942.1 | 5-in. concrete.... | 903.1 | April 29, 1909 | Crescent Con. Pav. Co. |
| 333.8 | ..... | ..... | Aug. 11, 1909 | Day labor. |
| 116.8 | 6-in. concrete... | 97.8 | Aug. 14, 1909 | " |
| 132.8 | 5-in. " .... | 125.0 | July 9, 1909 | J. J. Thompson. |
| 193.2 | ..... | ..... | Nov. 4, 1909 | Queen City Con. Pav. Co. |
| 570.7 | 5-in. concrete.... | 505.0 | July 30, 1909 | William Bushell. |
| 569.2 | 5-in. " .... | 502.7 | July 30, 1909 | " " |
| 429.0 | 5-in. " .... | 429.0 | May 12, 1909 | Queen City Con. Pav. Co. |
| 1,267.4 | .... ..... ... | ..... | May 22, 1909 | A. Johnson. |
| { 66.5 | ..... | ... ... | Aug. 25, 1909 | Day labor. |
| { 95.6 | ... ..... | .. . ... | Aug. 12, 1909 | Grant Contracting Co. |
| 436.0 | .... .... .... | ..... | June 12, 1909 | E. H. Schoales. |
| 960.3 | ..... .... | .... .. | May 18, 1909 | A. Johnson. |
| 124.8 | ..... ..... .... | ... ... | May 8, 1909 | Queen City Con. Pav. Co. |
| 2,096.5 | 5-in. concrete.... | 2,185.3 | July 20, 1909 | W. R. Payne. |
| 2,246.8 | 5-in. " .... | 2,255.8 | July 20, 1909 | " |
| 723.3 | 5-in. " . | 713.0 | July 8, 1909 | York Concrete Paving Co. |
| 446.0 | 6-in. " .... | 454.5 | July 15, 1909 | Crescent Con. Pav. Co. |
| 598.2 | 6-in. " .... | 601.7 | Aug. 3, 1909 | W. R. Payne. |
| 575.3 | 6-in. " .... | 575.3 | Aug. 3, 1909 | " |
| 260.5 | ..... .... .... | ..... | June 7, 1909 | York Concrete Paving Co. |
| 259.9 | ..... | ..... | June 5, 1909 | " " " |
| 1,048.5 | 6-in. concrete.... | 1,042.0 | Aug. 14, 1909 | William Bushell. |
| 1,726.4 | 5-in. " ... | 1,757.9 | July 16, 1909 | Constructing & Pav Co. |
| 443.4 | ..... | ..... | Nov. 8, 1909 | E. H. Schoales. |
| 456.5 | ... .... ..... | ..... | Nov. 16, 1909 | " |

CONCRETE SIDEWALKS—*Continued.*

| Street. | From. | To. | Side. | Width in Feet. |
|---|---|---|---|---|
| Sheridan | 537 ft. 4 in. south of Dundas. | Florence | East | 5 |
| Strickland Place and Earnbridge St. | From Noble Street Earnbridge 297 ft. 7 | to a point on in. east of Brock. | West. South | 4 |
| Shudell | Jones | East end | North | 5 |
| Summerhill | Ottawa | 176 feet east | South | 5 |
| Sunnyside | S.s. Galley (Prod.). | N.s. Garden running east (Prod.) | West. | 5 |
| Shudell | Jones | East end | South | 5 |
| *Spadina Road | St. Clair | Bridge | West. | 5 |
| Stephanie | Opposite Harrison | Baths | South | 5 |
| Southview | Westmoreland | Bartlett | South | 4 |
| Symington | Bloor | 335 feet south | East | 4 |
| Terauley | Albert | Agnes | East | 5 |
| Triller | King | Queen | East | 5 |
| Triller | King | Queen | West. | 5 |
| Thorold | Alhambra | 382 feet west | North | 5 |
| Thorold | Indian Road | 271 ft. 5 in. east. | South | 5 |
| Trafalgar | Gladstone | Dufferin | South | 5 |
| Verrall | Queen | Natalie | East | 4 |
| Vermont | Palmerston | Manning | North | 5 |
| Vermont | Bathurst | Palmerston | North | 5 |
| Westmoreland | Hallam | Van Horne | West. | 5 |
| Walmer Road | 741 feet north of Austin Terrace. | 360 ft. further north | West. | 4 |
| Wolseley | Barhurst | Markham | North | 4 |
| Wallace | Emerson | Dufferin | South | 5 |
| Withrow | Logan | Carlaw | South | 5 |
| Walton | Elizabeth | Terauley | North | 5 |
| Withrow | Logan | Pape | North | 5 |
| Withrow | Carlaw | Pape | South | 5 |
| Wardell | De Grassi | S.s. Cummings | S. & E. | 4 |
| Wallace | Dufferin | Lansdowne | North | 5 |
| Wilton | Sherbourne | Seaton | North | 6 |
| Walton | Yonge | Terauley | North | 5 |
| Westminster | Sunnyside | Indian Rd. | South | 5 |
| Westminster | Sunnyside | Indian Rd. | North | 5 |
| Westminster | Roncesvalles | Sunnyside | North | 5 |
| Westminster | Roncesvalles | Sunnyside | South | 5 |
| Woodlee | Gerrard | 338 ft. north | East | 4 |
| Woodlee | Gerrard | 300 ft. north | West. | 4 |
| Wells | Howland | Albany | South | 5 |
| Walmer Rd. | 269 ft. w. of Austin Terrace | 472 ft. further north | West. | 4½ |

CONCRETE SIDEWALKS—*Continued.*

| Length in Feet. | Curb. | | Completed. | Contractor. |
|---|---|---|---|---|
| | Class. | Length in Feet. | | |
| 940.4 | ... .. ..... | ..... | July 19, 1909 | Grant Contracting Co. |
| 380.1 | 6-in. concrete.... | 384.6 | Sept. 16, 1909 | " " " |
| 612.0 | 6-in. " .... | 627.0 | Oct. 8, 1909 | Queen City Con. Pav. Co. |
| 196.4 | ..... | ..... | Aug. 16, 1909 | Day labor. |
| 348.6 | 6-in. concrete.... | 355.6 | Sept. 23, 1909 | " |
| 636.0 | 6-in. " .... | 636.0 | Nov. 3, 1909 | Queen City Con. Pav. Co. |
| 466.5 | 6-in. " .... | 471.5 | Carried over to 1910. | Day labor. |
| 73 5 | 6-in. " ... | 104.6 | Sept. 14, 1909 | Day labor, order of Council. |
| 616.0 | 6-in. " ... | 553.5 | Nov. 13, 1909 | William Bushell. |
| 350.0 | 6-in. " .... | 337.0 | Nov. 20, 1909 | Day labor. |
| 953.2 | ..... | .. .... | June 24, 1909 | " |
| 546.0 | ..... | ..... | July 19, 1909 | " order of Council. |
| 516.0 | ..... | ..... | July 19, 1909 | " " " |
| 381.0 | ..... | ..... | June 23, 1909 | T. E McMurray. |
| 272.6 | ..... | ..... | Nov. 11, 1909 | Ontario Con. Pav. Co. |
| 363.0 | ..... .... | ..... | Oct. 6, 1909 | Day labor. |
| 401.1 | 6-in concrete.... | 399.9 | Oct. 11, 1909 | Queen City Con. Pav. Co. |
| 612.5 | ..... | ..... | Sept. 21, 1909 | York Concrete Paving Co. |
| 597.0 | 6-in. concrete.... | 597.0 | Nov. 24, 1909 | " " " |
| 927.0 | .... .. . .... | ..... | Nov. 10, 1909 | " " " |
| 360.0 | ..... | ..... | Oct. 27, 1909 | Day labor. |
| 276.7 | ..... ..... | ..... | April 14, 1909 | Crescent Con. Pav. Co. |
| 1,402.5 | ..... .... | ..... | May 5, 1909 | Reeve Concrete Pav. Co. |
| 674.0 | ..... .. | .. .... | June 29, 1909 | Queen City Con. Pav. Co. |
| 365.9 | ..... | ..... | May 14, 1909 | Day labor. |
| 1,278.2 | ..... | ..... | July 6, 1909 | Queen City Con. Pav. Co. |
| 624.5 | ..... | ..... | July 6, 1909 | " " " |
| 748.5 | 5-in. concrete.... | 740.5 | May 26, 1909 | J. J. Thompson. |
| 1,902.2 | ..... .... | ..... | May 1, 1909 | Reeve Concrete Pav. Co. |
| 386.0 | 5-in. concrete.... | 6.0 | June 2, 1909 | A. Johnson. |
| 723.0 | ..... | ..... | Oct. 6, 1909 | York Concrete Paving Co. |
| 343.3 | 5-in. concrete. .. | 327.3 | June 30, 1909 | T. E. McMurray. |
| 324.2 | 5-in. " .... | 324.2 | July 6, 1909 | " " |
| 576.5 | 5-in. " .... | 585.0 | June 22, 1909 | Constructing & Pav. Co. |
| 565.3 | 5-in. " .... | 563.8 | June 18, 1909 | " " " |
| 341.0 | 6-in. " .... | 348.0 | Sept. 21, 1909 | Day labor. |
| 324.0 | 6-in. " .... | 331.0 | Sept. 21, 1909 | " |
| 350 9 | 6-in. " . .. | 339.6 | Aug. 25, 1909 | Grant Contracting Co. |
| 253.4 | ..... ... | ..... | Oct. 27, 1909 | Day labor. |

CONCRETE SIDEWALKS—*Continued.*

| Street | From. | To. | Side. | Width Feet. |
|---|---|---|---|---|
| Wardell | De Grassi | Whitby | N. & W. | 4 |
| Wellesley St | Sherbourne | Ontario | South | 6 |

Total length in feet.....
" miles.....
Extra yardage opposite public buildings....

* Carried over to 1910.
§ Boulevard Section.

SUMMARY :—

Total number of works, 392.
Total number of day labor works, 87 (inclusive of O. of C. works).
Total number of day labor O. of C. works, 23.

PRIVATE CONCRETE SIDEWALKS.

| No. | Street. | From. | To. | Side. | Width. Feet. |
|---|---|---|---|---|---|
| 1 | Argyle | Beaconsfield | Lisgar | South | 5 |
| 2 | Adelaide | Duncan | 156 ft. east | South | 13.4 |
| 3 | Bloor | Dovercourt | 224½ ft. east | North | 5 |
| 4 | Bloor | Op. Nos. 807, 809, 811 | | South | 5 |
| 5 | Bloor | Dovercourt | 71 ft. west | South | 11 8 |
| 6 | Brock | House, No. 538 | House, No. 550 | West | 5 |
| 7 | Binscarth | Op. No. 24 | | West | 5 |
| 8 | Buchanan | Terauley | 403 ft. east | North | 6 |
| 9 | Binscarth and Highland | | n.e. corner | | 5 |
| 10 | Binscarth and Highland | | s.e. corner | | 6 |
| 11 | Centre Island | Opp. Mr. Topping's | house | | 2.4-4 |
| 12 | Centre Island | Opp. Royal Canadian | Yacht Club | | 6 |
| 13 | Crawford | King | Defoe | West | 5 |
| 14 | College and Grace | s.w. corner. | | | 5-7.2 |
| 15 | Christie | Opp. No. 291 | | East | 10 |
| 16 | Christie | Opp. No. 254 | | West | 20 |
| 17 | Carroll | Thompson | 100.2 ft. south | East | 4½ |
| 18 | Castle Frank Ave. | | | | 4 |
| 19 | College | Gladstone | 19 ft. east | North | 10.5 |
| 20 | Darnforth and Broadview | s.w. corner. | | | 6 |

CONCRETE SIDEWALKS—*Continued.*

| Length in Feet. | Curb. | | Completed. | Contractor. |
|---|---|---|---|---|
| | Class. | Length in Feet. | | |
| 1,025.8 | 6-in. concrete ... | 1,012.3 | Nov. 5, 1909 | A. J. Penberthy. |
| 569.5 | ..... | ..... | July 24, 1909 | Crescent Con. Pav. Co. |
| 271,855.8 | | 107,027.0 | | |
| 51.48 | | 20.27 | | |
| 3,386 | square yards. | | | |

PRIVATE CONCRETE SIDEWALKS.

| Length in Feet. | Curb. | | Contractor. |
|---|---|---|---|
| | Class. | Length in Feet. | |
| 289.0 | ..... | ..... | J. Dobney. |
| 168.5 | ..... | ..... | Leach Concrete Co. |
| 224.5 | ..... | ..... | Day labor. |
| 52.1 | ..... | ..... | Crescent Concr'te Pav. Co. |
| 71.0 | ..... | ..... | Grant Contracting Co. |
| 119.7 | ..... | ..... | " " |
| 50.8 | ..... | ..... | Page & Britnell. |
| 403.0 | ..... | ..... | Leach Concrete Co. |
| 44.2 | ..... | ..... | Mr. Miller. |
| 13.0 | ..... | ..... | Mr. Langley. |
| 132.0 | ..... | ..... | Day labor |
| 195.5 | ..... | ..... | " |
| 435.5 | ..... | ..... | W. R. Payne. |
| 48.0 | 6-in. concrete.... | 53.0 | E. Dunn. |
| 20.8 | ..... | ..... | G. Andrews. |
| 24.5 | ..... | ..... | R. Sevanton. |
| 105.2 | 6-in. concrete.... | 105.2 | W. R. Payne. |
| 56.0 | ..... | ..... | Mr. Smith. |
| 35.1 | 6-in. concrete... | 35.1 | The Marbloid Co. |
| 52.0 | 6-in. " ... | 52.0 | Crescent Concr'te Pav. Co. |

PRIVATE CONCRETE SIDEWALKS—*Continued.*

| No. | Street. | From. | To. | Side. | Width in Feet. |
|---|---|---|---|---|---|
| 21 | Dundas | Opp. Nos. 1027, 10 | 31 | West | 10.1 |
| 22 | Dufferin | Moutray | 196½ ft. north | West | 5 |
| 23 | Edgar | Opp. No. 12 | | North | 5 |
| 24 | Frederick | Front | 126½ ft. north | East | 6 |
| 25 | Front | Frederick | 200 ft. east | South | 6 |
| 26 | Frederick | King | Front | West | 6 |
| 27 | Golden | Silver | 242.2 ft. north | East | 4 |
| 28 | Grenville | Yonge | 1st lane west | South | 6 |
| 29 | Grenville | Opp. No. 132 | | West | 5 |
| 30 | Gerrard and Pape | n.w. corner | | | 10.9-13 |
| 31 | Glen Road | Bridge | 20.4 ft. north | West | 5 |
| 32 | Highland | 877 ft. w. Glen Rd. | 18 ft. further west | South. | 6 |
| 33 | Howard Park Ave. | Roncesvalles | 15½ ft. west | South | 12 |
| 34 | King | Strachan | 1st lane east | South | 6.5 |
| 35 | Kippendavie | Queen | 14 ft. south | West | 5 |
| 36 | Lane 1st e. Victoria | Wilton | 98 ft. south | East | 3.2 |
| 37 | Lansdowne | Opp. Nos. 748, 752. | | West | 11 |
| 38 | Lee Ave. | 8 ft. n. of Queen | 46.3 ft. further n. | East | 5 |
| 39 | Parkwood | 19.8 ft. n. of St. Clair | 740 n. of St. Clair | East | 5 |
| 40 | Pearl | Duncan | 68.2 ft. east | South | 11.5 |
| 41 | Pearl | Duncan | 47.5 fr. west | South. | 7.6 |
| 42 | Pearl | Duncan | 36.3 ft. west | North | 7.4 |
| 43 | Pearl | York | 90.7 ft. west | South | 6.9-7 2 |
| 44 | Queen | Kippendavie | 428 feet west | South | 5-9.2 |
| 45 | Roncesvalles | Opposite No. 60. | | West. | 5 |
| 46 | Roncesvalles and | Howard Park Ave., | N.-w. corner | | 5-12 |
| 47 | Richmond | 251½ ft. w. of Peter | 100 feet further west | North | 10.4-12.2 |
| 48 | Silver | Golden | Morrow | North | 4 |
| 49 | Scollard | Opposite T. S. R. | Barns | South | 4.8 |
| 50 | St. Clair | Yonge | 148 feet east | South | 5 |
| 51 | Trinity Square | West Branch | | | 10 |
| 52 | Walmer Road | Opposite Sir Henry | Pellatt's | West. | 4½ |
| 53 | West Ave. | Opposite Nos. 6 & 8 | | West. | 4 |
| 54 | Yonge | St. Clair | 69 feet south | East | 6 |

PRIVATE CONCRETE PAVEMENT.

| | | | | | |
|---|---|---|---|---|---|
| 1 | Lane in rear of | No. 21 to No. 25 | Mercer St. | | 15 |

PRIVATE CONCRETE SIDEWALKS—*Continued.*

| Length in Feet. | Curb. | | | Contractor. |
|---|---|---|---|---|
| | Class. | Length in Feet. | | |
| 66.0 | | | | J. Grogan. |
| 228.5 | | | | J. J Thompson. |
| 101.7 | | | | Ontario Concrete Pav. Co. |
| 137.0 | | | | Toronto Street Railw'y Co. |
| 200.0 | | | | " " " |
| 282.4 | | | | " " " |
| 275.7 | | | | Ontario Concrete Pav. Co. |
| 128.7 | | | | Crescent " " |
| 131.7 | | | | Ontario " " |
| 36.8 | | | | Bank of Commerce. |
| 20.4 | | | | Day labor. |
| 18.0 | | | | A. J. Penberthy. |
| 15.5 | | | | Leach Concrete Pav. Co. |
| 147.0 | | | | Massey-Harris Co. |
| 14.0 | 6-in. concrete | 14.0 | | A. Smith. |
| 98.0 | | | | A. J. Penberthy. |
| 57.5 | | | | Page & Britnell. |
| 46.3 | 5-in. concrete | 46.3 | | Crescent Concr'te Pav. Co. |
| 720.2 | | | | Grant Contracting Co. |
| 80.0 | | | | Leach Concrete Pav. Co. |
| 59.0 | | | | " " " |
| 48.5 | | | | " " " |
| 90.7 | | | | " " " |
| 62.8 | 6-in. concrete | 28.0 | | A. Smith. |
| 100.0 | | | | Hubbard Bros. |
| 41.0 | | | | W. R. Payne. |
| 100.0 | | | | Rudd Paper Box Co. |
| 419.8 | | | | Ontario Concrete Pav. Co. |
| 301.8 | | | | Toronto Street Ry. Co. |
| 158.0 | | | | J. J. Thompson. |
| 156.0 | | | | Crescent Concrete Pav. Co. |
| 200.5 | 7-in. concrete | 256.0 | | A. Gardner & Co. |
| 23.0 | | | | J. J. Thompson. |
| 69.0 | | | | " " |
| 7,175.9 | | 589.0 | | |

PRIVATE CONCRETE PAVEMENT.

| | Area in Sq. Yds. | | | |
|---|---|---|---|---|
| 67.0 | 112 | | | Crescent Concrete Pav. Co. |

TABLE No. 6.

| Class of Work. | Total Square Yards in City. | Total Miles in City. | Square Yards laid in 1909. | Year First Laid. | Maximum Grade of Pavement. | Guaranteed Period of Years. | Maximum Cost per sq. yd. in 1909. | Minimum Cost per sq. yd. in 1909. | Average Cost per sq. yd. in 1909. | Remarks. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | % | | $ c. | $ c. | $ c | |
| Asphalt | 1,923,083 | 118.44 | 230,657 | 1888 | 4.73 | 5 | 1.95 | 1.59 | 1.72 3/4 | Heavy (prices for). |
| " | | | | | | | 1.80 | 1.40 | 1.60 | Medium (prices for). |
| " | | | | | | | 1.44 | 1.12 | 1.28 | Light (prices for). |
| Asphalt Block | 50,695 | 4.14 | 34,018 | 1904 | 3.82 | 5 | | | | 4-in. blks., 6-in. con. (prices). |
| " " | | | | | | | 3.25 | 3.00 | 3.10 | 3-in. blks., 4-in. con. (prices). |
| Brick on concrete | 358,870 | 23.62 | 8,588 | 1893 | 5.50 | 5 | 2.36 | 2.20 | 2.23 | On 4 inches of concrete. |
| Brick (blk.) | | | 12,653 | | | 5 | | | | On 6 inches of concrete. |
| Brick on broken stone | 15,031 | .842 | | 1899 | | 5 | | | | None laid in 1909. |
| Brick on gravel | 32,009 | 2.218 | | 1896 | | 5 | | | | None laid in 1909. |
| †Cedar Block | | | | 1881 | 3.78 | 5 | | | | None laid in 1909. |
| Cedar Block | | 17.71 | | | | 5 | | | | None laid in 1909. |
| Gravel | | 21.15 | | 1880 | | 1 | | | | Including all new districts. |
| *Scoria and Granite | 83,880 | 4.847 | | 1884 | | 5 | | | | None laid in 1909. |
| Macadam | | 45.91 | 1,170 | | 8.80 | 1 | | | | 13 inches in depth. |
| Tar Macadam | 86,619 | 3.88 | | 1900 | 3.70 | 1 | | | | None laid in 1909. |
| Bitulithic | 304,376 | 20.68 | 73,775 | 1904 | 10.94 | 5 | | | | |

† On Concrete.

* Street railway track allowance not included in total mileage.

## TABLE No. 7.

Giving Mileage of Concrete and Brick Sidewalks Constructed in the City of Toronto.

| Year. | Cement Concrete. | Brick. | Total. |
|---|---|---|---|
| Up to 1889 | 1.190 | | 1.190 |
| 1890 | 1.426 | | 1.426 |
| 1891 | 1.950 | | 1.950 |
| 1892 | 1.508 | | 1.508 |
| 1893 | 2.259 | | 2.259 |
| 1894 | 1.137 | | 1.137 |
| 1895 | 1.918 | | 1.918 |
| 1896 | 0.612 | 0.204 | 0.816 |
| 1897 | 1.050 | 0.820 | 1.870 |
| 1898 | 2.107 | 1.190 | 3.297 |
| 1899 | 5.470 | 0.290 | 5.760 |
| 1900 | 15.227 | 0.038 | 15.265 |
| 1901 | 17.305 | 0.511 | 17.816 |
| 1902 | 27.360 | 0.049 | 27.409 |
| 1903 | 34.896 | 0.093 | 34.989 |
| 1904 | 31.058 | 0.601 | 31.059 |
| 1905 | 37.509 | 0.037 | 37.537 |
| 1906 | 43.536 | 0.131 | 43.667 |
| 1907 | 58.309 | | 58.309 |
| 1908 | 55.101 | 0.303 | 55.404 |
| 1909 | 52.839 | | 52.839 |
| Totals | 393.758 | 3.667 | 397.425 |

TABLE No. 8.

SIDEWALKS.

| Street. | Side. | From. | To. | Width in Feet. | Description. | Length in Feet. |
|---|---|---|---|---|---|---|
| Antler | S | Perth | Franklin | 5 | Next curb | 449. |
| Afton | S | 18 ft. 3 in. w. of Lisgar | Northcote | 5 | With curb | 549.3 |
| Argyle | N | Gladstone | Northcote | 5 | Next curb | 307.5 |
| Broadway Place | N | Spadina | West End | 4 | Next curb | 559.1 |
| Bismarck | S | Yonge | Park Road | 5 | Pres. position | 657.5 |
| Broadview | E | Queen | Eastern | 5 | Next curb | 946.9 |
| Broadview | W | 1039 ft. n. Gerrard | 750 ft. fur. n. | 6 | Pres. position | ..... |
| Brant | W | King | Adelaide | 5 | Next curb | 431.5 |
| Beatrice | E | 922 ft. n. College | 146 ft. fur. n. | 4 | With curb | 146. |
| Broadway Place | S | Spadina | 156 ft. west | 4 | Next curb | 185. |
| Bain | N | Pape | Carlaw | 4 | 2 ft. from curb | 610. |
| Bloor | N | Dovercourt | Delaware | 6 | Pres. position | 352.5 |
| Churchill | S | Lakeview | 187 ft. east | .... | ..... | 190. |
| Centre Island | .... | Ferry Dock | Pavillion | 6&8 | ..... | 1,006.4 |
| Castle Frank Av | W | McKenzie | 468 ft. south | 4 | Next curb | 439.6 |
| College | N | 278 ft. w. Dovercourt | Rusholme | 5 | Pres. position | 154. |
| Cecil | S | Beverley | Henry | 4 | With curb | 275.2 |
| Carlisle | E | St. Patrick | North End | 4 | Pres. position | 377. |
| Crawford | W | 665 ft. n. Bloor. | Thorne | 5 | Next curb | 356.4 |
| Duke (Boulev'd) | S | Jarvis | George | 10.4 | ..... | ..... |
| Dalhousie | W | Queen | Shuter | 4 | Pres. position | 555. |
| Defoe | S | McDonnell Sq. | Tecumseth | 5 | Next curb | 213.7 |
| Dalhousie | W | Wilton | Gould | 5 | With curb | 583. |
| Dalhousie | E | 143 ft. n. Queen | Shuter | 5 | With curb | 420.5 |
| Duke | S | Jarvis | George | 6 | Pres. position | 270. |
| Dunvegan | E | St. Clair | Lonsdale | 5 | 12½ ft. from st. line | 1,509.9 |
| Dunvegan | W | 90 ft. s. of Heath | N. City Limits | 5 | 12½ ft. from st. line | 1,023.9 |
| Emerson | E | 130 ft. n. Wallace | Lappin | 5 | With curb | 760. |
| Elizabeth | E | Walton | Hayter | 5 | Next curb | 289.5 |
| Edgar | N | Schofield | E. Roxboro | 5 | 10½ ft. from st. line | 921.8 |
| Edgar | S | Schofield | E. Roxboro | 5 | 10½ ft. from st. line | 2,019.5 |
| Euclid | E | Arthur | Robinson | 6 | Next curb | 1,289.5 |
| E. Roxboro | S | Schofield | Glen Road | 5 | Next curb | 400.0 |
| E. Roxboro | N | Schofield | Edgar | 5 | Next curb | 1,000.0 |

## TABLE No. 8.

### Sidewalks.

| City's Tender. | Length in miles on a basis of 5 feet wide. | Next lowest Tender, per lineal foot. | Actual cost of Work included in Tender, per lineal ft. | Cost of Work not included in Tender. | Cost of Work included in Tender. | Total cost of Work, exclusive of interest on money. | The difference between the actual cost and cost based on Contractor's lowest Tender. | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Gain. | Loss. |
| $ c. | | $ c. | $ c. | $ c. | $ c. | $ c. | $ c. | $ c. |
| O. of C. | .085 | ..... | 58 | ..... | 261 47 | 261 47 | ..... | ..... |
| 1 05 | .104 | 1 09 | 84 | 47 25 | 434 16 | 481 41 | 129 59 | ..... |
| 60 | .0582 | 65 | 60 | ..... | 185 06 | 185 06 | 14 81 | ..... |
| 48 | .0847 | 50 | 48 | 12 00 | 271 96 | 283 96 | 7 59 | ..... |
| 60 | .1245 | ..... | 57 | 16 35 | 374 94 | 391 29 | 44 58 | ..... |
| 60 | .1793 | 65 | 55 | 40 68 | 523 25 | 563 93 | 90 87 | ..... |
| O. of C. | ..... | ..... | 65 | 8 53 | 516 22 | 524 75 | ..... | ..... |
| ..... | .0817 | ..... | 47 | 13 00 | 202 46 | 215 46 | 69 38 | ..... |
| 92 | .0221 | 1 00 | 78 | 5 00 | 115 47 | 120 47 | 31 53 | ..... |
| 45 | .0288 | 52 | 47 | 2 00 | 87 88 | 89 88 | 8 32 | ..... |
| 45 | .0922 | 48 | 52 | 18 01 | 319 54 | 337 55 | ..... | 26 74 |
| 72 | .0801 | 78 | 71 | 13 50 | 249 82 | 263 32 | 25 13 | ..... |
| 62 | ..... | 65 | 62 | 6 25 | 119 12 | 125 37 | 4 64 | ..... |
| O. of C. | ..... | ..... | ..... | 32 77 | 735 14 | 767 91 | ..... | ..... |
| 56 | .0666 | 65 | 43 | 13 81 | 190 43 | 204 24 | 97 50 | ..... |
| ..... | .0291 | ..... | 66 | 6 45 | 99 55 | 106 00 | 5 17 | ..... |
| 74 | .0417 | 78 | 76 | 7 11 | 202 25 | 209 36 | 4 29 | ..... |
| 49 | .0571 | 52 | 52 | 165 50 | 189 88 | 355 38 | 44 | ..... |
| 60 | .0675 | 62 | 54 | 17 25 | 191 06 | 208 31 | 29 91 | ..... |
| O. of C. | ..... | ..... | 1 42 | ..... | 366 85 | 366 85 | ..... | ..... |
| 48 | .084 | ..... | 44 | 34 38 | 243 08 | 277 46 | 34 42 | ..... |
| ..... | .0404 | ..... | 58 | ..... | 125 06 | 125 06 | ..... | ..... |
| 1 05 | .1138 | 1 08 | 93 | 26 23 | 545 22 | 571 45 | 84 42 | ..... |
| 1 05 | .0796 | 1 08 | 78 | 42 11 | 317 63 | 359 74 | 121 39 | ..... |
| 70 | .0613 | 72 | 91 | 53 01 | 247 91 | 300 92 | ..... | 53 51 |
| 52 | .2859 | 65 | 51 | 162 55 | 770 40 | 932 95 | 211 10 | ..... |
| 52 | .1937 | 65 | 53 | 126 75 | 547 48 | 674 23 | 119 88 | ..... |
| 1 07 | .1439 | ..... | 93 | 32 11 | 707 80 | 739 91 | 188 17 | ..... |
| 60 | .0548 | 64 | 55 | 40 71 | 150 02 | 190 73 | 24 70 | ..... |
| 60 | .0745 | ..... | 69 | 5 98 | 643 93 | 649 91 | ..... | 82 96 |
| 58 | .3824 | 69 | 71 | 5 00 | 733 03 | 738 03 | ..... | 20 39 |
| O. of C. | .2928 | ..... | 68 | 122 50 | 873 09 | 995 59 | ..... | ..... |
| ..... | .0757 | ..... | ..... | 54 51 | 429 05 | 483 56 | ..... | ..... |
| 58 | .19 | ..... | 53 | 11 88 | 534 48 | 546 36 | 160 00 | ..... |

TABLE No. 8—*Continued.*

SIDEWALKS.

| Street. | Side. | From. | To. | Width in Feet. | Description. | Length in Feet. |
|---|---|---|---|---|---|---|
| Exhibition Sea Wall | .. | ..... | ..... | ..... | ..... | 601.8 |
| Exhibition Walkway | ..... | Entrance ..... | ..... | ..... | ..... | ..... |
| Glen Road .... | W | Binscarth ... | E. Roxboro .. | 5 | 17½ ft. from st. line | 591.3 |
| Gladstone . | W | Waterloo .... | Trafalgar .... | 5 | Pres. position | 291. |
| Grange .... | S | Spadina . . | 87 ft. e. Esther.. | 6 | Next curb .. | 731.8 |
| Galley ..... | N | Roncesvalles .. | Sunnyside .... | 5 | With curb.... | 531.3 |
| Galley .... ... | S | Sorauren..... | 350 ft. east.... | 5 | With curb.. . | 364. |
| Galley ..... | N | Sorauren..... | Macdonnell .. | 5 | With curb.... | 806.5 |
| Hanlan's Point .... | | Heber Park .. | End Ferry Dock | ... | ..... | 831.6 |
| Havelock .... | W | Op. Dufferin P'k. | ..... | 5 | Next curb ... | 452. |
| Hunt ..... | S | Homewood .... | East End .. | 3½ | With curb.... | 152.8 |
| Highlands .... | S | Schofield..... | 360 ft. west . | 5 | 15 ft. from st. line | 361.8 |
| High Park | E | Roncesvalles .. | 236 ft. east ... | 5 | With curb ... | 129. |
| King ..... | N | Op. Stanley P'k. | ..... ..... | 6 | Pres. position | 327. |
| King ..... | S | Jefferson..... | Fraser..... | .... | ..... | 652. |
| Lansdowne.... | E | Royce ..... | N. City Limits | 5 | With curb ... | 247. |
| Lynd and Parkway W. | E | 598 s. Dundas on Lynd. | 862 ft. s. Dundas on Parkway. | 5 | Next curb.... | 558. |
| Lynwood .... | N | Poplar Plains. | Warren ..... | 5 | Next curb.... | 631. |
| Lynwood .... | S | Poplar Plains.. | Warren .. ... | 5 | Next curb ... | 632.5 |
| Mohawk ..... | .... | Iroquois ..... | 179 ft. south .. | 6 | Centre..... | 196.6 |
| Markham .... | E | Lennox ..... | Bloor .... ... | 5 | Next curb ... | 454. |
| Millicent .... | N | Emerson..... | 128½ ft. east .. | 4 | With curb.... | 127. |
| Muir ..... | N | Brock ... . | Sheridan..... | 4 | Next curb.... | 457. |
| Marjory ..... | E | 434 ft. s. Gerrard | 220 ft. fur. s... | 5 | With curb.... | 224. |
| Natalie ..... | N | Verral ..... | Carlaw..... | 5 | With curb.... | 269.6 |
| Natalie ..... | S | Logan ..... | Booth ..... | 5 | With curb ... | 275.8 |
| Pinehill ..... | W | Rosedale ..... | 129 ft. w .... | 4 | Pres. position | 133.3 |
| Reservoir Steps .... | | 25 ft. long .... | ..... | 8 | . . ..... | ..... |
| Rideau ..... | N | Lansdowne.... | Macdonnell.... | 4½ | With curb.... | 292.3 |
| Roxboro .... | S | Yonge ... ... | Cluny ..... | 5 | Next curb.... | 894. |
| St. Patrick .... | S | Op. Ryerson Sch | ..... | 6 | Next curb.... | 227.3 |
| St. Joseph .... | S | Yonge ..... | St. Nicholas .. | 6 | Pres. position | 197. |
| Sheppard .... | W | Richmond..... | Adelaide ..... | 6 | Pres. position | 338. |
| St. Clair ..... | S | Avenue Rd.... | Warren Road.. | 5 | With curb.... | 1,245.5 |
| Sarah ..... | E | Belmont ..... | s.s. Roden Pl... | 4 | With curb.... | 116.8 |
| Sunnyside .... | W | s.s. Galley .... | n.s. Garden.... | 5 | With curb.... | 337. |
| Symington .... | E | Bloor .... ... | 355 ft. south .. | 4 | With curb... | 337. |
| Summerhill .. | S | Ottawa ..... | 176 ft. east .... | 5 | Next curb.... | 196.4 |

TABLE No. 8—*Continued.*

SIDEWALKS.

| City's Tender. | Length in miles on a basis of 5 feet wide. | Next lowest Tender, per lineal foot. | Actual cost of Work included in Tender, per lineal ft. | Cost of Work not included in Tender. | Cost of Work included in Tender. | Total cost of Work, exclusive of interest on money. | The difference between the actual cost and cost based on Contractor's lowest Tender. | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Gain. | Loss. |
| $ c. | | $ c. | $ c. | $ c. | $ c. | $ c. | $ c. | $ c. |
| O. of C. | ..... | ..... | .... | ..... | 1,870 78 | 1,870 78 | ..... | ..... |
| O. of C. | .... | ..... | ..... | ..... | 598 32 | 598 32 | ... | ..... |
| ..... | .1119 | ... | 64 | 3 42 | 247 72 | 251 14 | ..... | 15 58 |
| 62 | .0511 | 65 | 65 | 15 15 | 189 38 | 204 53 | ..... | 23 |
| 69 | .1663 | 72 | 63 | 50 07 | 457 76 | 507 83 | 61 72 | ..... |
| 1 02 | .1006 | 1 05 | 1 09 | 260 27 | 579 83 | 840 10 | ..... | 21 97 |
| O. of C. | .0689 | ..... | 76 | 7 50 | 278 60 | 286 10 | ..... | ..... |
| O. of C. | .1527 | ..... | 97 | 7 50 | 783 15 | 790 65 | ..... | .... |
| O. of C. | ..... | .... | 91 | 57 05 | 759 24 | 816 29 | ..... | ..... |
| O. of C. | .0856 | ..... | 56 | ..... | 256 90 | 256 90 | ..... | ..... |
| 80 | .0202 | 82½ | 75 | ..... | 115 87 | 115 87 | 10 19 | ..... |
| 60 | .0685 | 70 | 62 | 36 62 | 224 09 | 260 71 | 29 17 | ..... |
| 90 | .0244 | 1 00 | 68 | 4 26 | 84 41 | 88 67 | 39 59 | .. .. |
| O. of C. | .0743 | ..... | 70 | 2 50 | 230 22 | 232 72 | ..... | ..... |
| O. of C. | ... . | ..... | ..... | ..... | 422 26 | 422 26 | ..... | ..... |
| 1 05 | .0467 | 1 06½ | 88 | ..... | 218 92 | 218 92 | 44 13 | ..... |
| 60 | .1056 | 62 | 50 | 10 50 | 281 25 | 291 75 | 64 71 | .... . |
| 65 | .1195 | 69 | 54 | 8 75 | 345 40 | 354 15 | 89 99 | ..... |
| 65 | .1197 | 69 | 53 | 2 50 | 335 45 | 337 95 | 100 97 | .. ... |
| ..... | ..... | .... | ..... | ..... | 101 15 | 101 15 | ..... | .. .. |
| 58 | .0859 | 62 | 55 | 14 45 | 250 28 | 264 73 | 31 20 | ..... |
| 90 | .0193 | 94 | 72 | ..... | 91 34 | 91 34 | 28 04 | ..... |
| 44 | ..... | 48 | 47 | 10 00 | 216 80 | 226 80 | 2 56 | ..... |
| 1 00 | .0424 | ..... | 87 | 5 00 | 194 85 | 199 85 | 29 15 | .... . |
| 84 | .0396 | ..... | 68 | 9 00 | 133 35 | 142 35 | 29 77 | ..... |
| 1 05 | .0522 | 1 09½ | 92 | 29 75 | 223 39 | 253 14 | 40 29 | .... . |
| ..... | .0207 | ..... | 73 | 1 00 | 98 30 | 99 30 | .. .... | 23 65 |
| O. of C. | .. ... | ..... | ..... | ..... | 107 68 | 107 68 | ..... . | ..... |
| O. of C. | .0498 | ..... | 1 05 | 62 15 | 290 18 | 352 33 | .. ..... | ..... |
| O. of C. | .1693 | ..... | 64 | 7 00 | 575 38 | 582 38 | ..... | ..... |
| O. of C. | .0516 | ..... | 79 | 83 75 | 180 34 | 264 09 | ... .... | ... . |
| 72 | .0446 | 80 | 62 | 40 09 | 114 24 | 154 33 | 33 76 | ..... |
| 70 | .0767 | 75 | 84 | 6 00 | 281 19 | 287 19 | ..... | 30 84 |
| 1 05 | .2358 | 1 11 | 99 | 290 70 | 1,234 87 | 1,525 57 | 147 63 | ..... |
| 74 | .0177 | 79 | 99 | 12 94 | 96 82 | 109 76 | ..... | 19 56 |
| 90 | .0638 | .... | 98 | 53 19 | 342 05 | 395 24 | ..... | 28 31 |
| 88 | .0510 | ..... | 67 | 12 80 | 225 70 | 238 50 | 111 30 | ..... |
| 52 | .0371 | 56 | 54 | 14 00 | 106 16 | 120 16 | 3 82 | ..... |

TABLE No. 8—*Continued.*

SIDEWALKS.

| Street. | Side. | From. | To. | Width in Feet. | Description. | Length in Feet. |
|---|---|---|---|---|---|---|
| Spadina | W | St. Clair | Bridge | 5 | With curb | 466.5 |
| Stephanie | S | Opp. Harrison Baths | 73½ ft. | 5 | With curb | 105. |
| Terauley | E | Albert | Agnes | 5 | Pres. position | 953.3 |
| Triller | E | King | Queen | 5 | 6 ft. from curb | 546. |
| Triller | W | King | Queen | 5 | 6 ft. from curb | 546. |
| Trafalgar | S | Gladstone | Dufferin | 5 | Next curb | 363. |
| Walton | N | Elizabeth | Terauley | 5 | Pres. position | 365.9 |
| Walmer | W | 269 ft. n. Austin | 472 ft fur. n. | 4½ | 11 ft. from st. line | 247.4 |
| Walmer | W | 741 ft. n. Austin | 360 ft. fur. n. | 4½ | 11 ft. from st. line | 366. |
| Woodlee | E | Gerrard | 338 ft. north | 4 | With curb | 341. |
| Woodlee | W | Gerrard | 300 ft. north | 4 | | 324. |
| Yorkville | | Opp. Fire Hall. | | | | 2,981 s.f. |

84 Walks done by Day Labor, 21 of these being O. of C.

TABLE No. 8—*Continued.*

SIDEWALKS.

| City's Tender. | Length in miles on a basis of 5 feet wide. | Next lowest Tender, per lineal foot. | Actual cost of Work included in Tender, per lineal ft. | Cost of Work not included in Tender. | Cost of Work included in Tender. | Total cost of Work, exclusive of interest on money. | The difference between the actual cost and cost based on Contractor's lowest Tender. | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Gain. | Loss |
| $ c. | | $ c. | $ c. | $ c. | $ c. | $ c. | $ c. | $ c. |
| ..... | .8800 | ..... | ..... | 151 25 | 631 59 | 782 84 | ..... | ..... |
| O. of C. | .0200 | ..... | ..... | ..... | 119 76 | 119 76 | ..... | ..... |
| 59 | .1805 | 68 | 55 | 61 50 | 521 99 | 583 49 | 126 18 | ..... |
| O. of C. | 1034 | ..... | 59 | 3 00 | 327 00 | 330 00 | ..... | ..... |
| O. of C. | .1034 | ..... | 59 | 3 60 | 308 88 | 312 48 | ..... | ..... |
| 55 | .0687 | 65 | 51 | 7 50 | 184 26 | 191 76 | 51 69 | ..... |
| 59 | .0693 | 68 | 53 | 29 30 | 194 22 | 223 52 | 54 59 | ..... |
| 60 | .0385 | 65 | 45 | ..... | 114 70 | 114 70 | 50 01 | ..... |
| 60 | .0624 | 65 | 49 | 41 50 | 177 36 | 218 86 | 56 64 | ..... |
| 88 | .0515 | ..... | 66 | 8 05 | 225 48 | 233 53 | 74 60 | ..... |
| 88 | .0490 | ..... | 66 | 8 05 | 212 97 | 221 02 | 72 15 | ..... |
| O. of C. | ..... | ..... | ..... | ..... | 338 61 | 338 61 | ..... | ..... |
| | 7.2756 | | | 2,574 84 | 29,005 13 | 31,579 97 | 2,891 68 | 323 74 |
| | | | | | | | 323 74 | |
| | | | | | | Net Gain | 2,567 94 | |

TABLE No. 9.

PAVEMENTS.

| No. | Street. | From | To | Class of Pavement. | Width in feet. | Length in feet. |
|---|---|---|---|---|---|---|
| 1 | Albemarle | Former w. lt. | Hampton | Grading | 40 | 143 |
| 2 | Alhambra | Thorold | Bloor | Bitulithic | 24 | 304 |
| 3 | Austin | Pres. e. terminus | Marjory | Grading | 40 | 350 |
| 4 | Albany | Hillcrest, s.s. | Nina | Grading | 40 | 570 |
| 5 | Broadway Pl. | Spadina | 198 ft. 7 in. w. | Asphalt | | 345 |
| 6 | " | 198 ft. 7 in. w. of Spadina | West End | " | | 201 |
| 7 | Barton | Brunswick | Howland | Asphalt | 24 | 261 |
| 8 | Brock | Bloor | 1000 ft. south | " | 24 | 1,043 |
| 9 | Britain | George | Sherbourne | " | 24 | 642 |
| 10 | Borden | Ulster | Bloor | " | 24 | 901 |
| 11 | Boston | Queen | 1381 north | Grading | 40 | 1,381 |
| 12 | Dunn | Queen | Railway tr'ks | Asphalt | | 2,719 |
| 13 | Dalhousie | Gould | Gerrard | " | 20 | 579 |
| 14 | Grace | 420 ft. s. of Bloor | 225 ft. f. south | Asphalt Block | 24 | 225 |
| 15 | Grace | Bloor | 420 ft. south | Asphalt Block | 24 | 420 |
| 16 | Glen Rd. | Bridge | n. s. Highl'ds | Asphalt | 24 | 366 |
| 17 | Highlands | Schofield | 336 ft. west | Bitulithic | 18 | 335 |
| 18 | Lansdowne Av. | Subway | | Vit. Blk. & Con. walks | 24 | |
| 19 | Marjory | Dagmar | | Grading | 40 | 80 |
| 20 | Ontario Pl. | Ontario | West End | Asphalt | 18 | 323 |
| 21 | Pearl | Duncan | John | Vitrified Block | 24 | 379 |
| 22 | Riverdale | Logan | Carlaw | Asphalt | 24 | 610 |
| 23 | Russell | St. George | Spadina | " | 24 | 625 |
| 24 | Roncesvalles | Queen | Northerly | " | Variable | |
| 25 | Sackville | King | Queen | " | 24 | 694 |
| 26 | Sarah & Roden Pl. | Belmont | McMurrich | " | | 335 |
| 27 | Shaw | King | Defoe | Asphalt | | 486 |
| 28 | Sunnyside | Garden | Galley | " | 24 | 393 |
| 29 | St. Joseph | Queen's Park | 264 ft. east | Macadam | 24 | 264 |
| 30 | Triller | King | Queen | Asphalt | 24 | 546 |
| 31 | Thorold | Alhambra | West End | " | 24 | 384 |
| 32 | Ulster | Bathurst | Major | " | 24 | 1,099 |

TABLE No. 9.

PAVEMENTS.

| City's Tender. | Next Lowest. | Cost of work not included in Tender. | Actual cost of work included in Tender. | Total cost of work exclusive of interest on money. | Total cost of work based on Contractor's lowest Tender. | Difference between the actual cost and the cost based on the Contractor's lowest Tender. | |
|---|---|---|---|---|---|---|---|
| | | | | | | Gain. | Loss. |
| $ c. | $ c. | $ c. | $ c. | $ c. | $ c. | $ c. | $ c. |
| Order of Council. | | | 319 69 | 319 69 | | | |
| 1,984 00 | 2,006 00 | 10 46 | 1,910 08 | 1,920 54 | 2,016 46 | 95 92 | |
| 1,654 00 | | | 811 83 | 811 83 | | | |
| 225 00 | | | 144 33 | 144 33 | | 80 67 | |
| 644 00 | 665 00 | 3 60 | 714 63 | 718 23 | 668 60 | | 49 63 |
| 1,149 00 | 1,155 00 | 3 45 | 1,231 55 | 1,235 00 | 1,158 45 | | 76 55 |
| 770 00 | 846 00 | 51 13 | 791 82 | 842 95 | 897 13 | 54 18 | |
| 3,423 00 | 4,153 00 | 30 34 | 4,491 87 | 4,522 21 | 4,183 34 | | 338 87 |
| 2,345 00 | 2,474 00 | 75 67 | 2,235 14 | 2,310 81 | 2,549 67 | 238 86 | |
| 7,238 00 | 7,400 00 | 24 62 | 7,634 66 | 7,659 28 | 7,424 62 | | 234 66 |
| 1,012 00 | | | 636 23 | 636 23 | | 375 77 | |
| 8,650 00 | 8,789 00 | 24 21 | 9,559 46 | 9,583 67 | 8,813 21 | | 770 46 |
| 1,487 00 | 1,500 00 | 30 87 | 1,718 42 | 1,749 29 | 1,530 87 | | 218 42 |
| 1,824 00 | 1,888 00 | | 1,807 42 | 1,807 42 | 1,888 00 | 80 58 | |
| 3,433 00 | 3,500 00 | | 3,181 18 | 3,181 18 | 3,500 00 | 318 82 | |
| 1,839 00 | 1,849 00 | 25 47 | 2,053 14 | 2,078 61 | 1,874 47 | | 204 14 |
| 1,585 00 | 1,683 00 | 5 96 | 1,544 79 | 1,538 83 | 1,677 04 | 138 21 | |
| Order of Council. | | | 9,214 16 | 9,214 16 | | | |
| Order of Council. | | | 410 99 | 410 99 | | | |
| 963 00 | 1,104 00 | 1 23 | 884 72 | 885 95 | 1,105 23 | 219 28 | |
| 2,552 00 | 2,886 00 | 454 50 | 2,817 52 | 3,272 02 | 3,340 50 | 68 48 | |
| 1,873 00 | 1,913 00 | 5 14 | 1,833 23 | 1,838 37 | 1,918 14 | 79 77 | |
| 2,892 00 | | 20 06 | 2,757 55 | 2,777 61 | | 134 45 | |
| Order of Council. | | | 2,950 32 | 2,950 32 | | | |
| 2,583 00 | 2,675 00 | 45 70 | 3,025 85 | 3,071 55 | 2,720 70 | | 350 85 |
| 923 00 | 949 00 | 42 65 | 1,092 72 | 1,135 37 | 991 65 | | 143 72 |
| 3,156 00 | 3,816 00 | 166 02 | 3,212 10 | 3,046 08 | 3,649 98 | 603 99 | |
| 2,412 00 | 3,159 00 | 15 49 | 2,369 76 | 2,385 25 | 3,174 49 | 789 24 | |
| Order of Council. | | | 1,312 35 | 1,312 35 | | | |
| Order of Council. | | | 2,441 63 | 2,441 63 | | | |
| 1,972 00 | 2,087 00 | 10 43 | 1,705 94 | 1,695 51 | 2,076 57 | 381 06 | |
| 7,118 00 | 4,080 00 | 79 27 | 4,358 44 | 4,437 71 | 4,159 27 | | 278 44 |
| | | 761 45 | 81,173 52 | 81,934.97 | 63,647 45 | 3,688 19 | 2665 74 |
| | | | | | | 2,665 74 | |
| | | | | | Net Gain | 1,012 45 | |

## TABLE No. 10.

WORKS CONSTRUCTED AS LOCAL IMPROVEMENTS FROM 1892 TO 1909 (INCLUSIVE).

| Class of Work. | 1892 | 1893 | 1894 | 1895 | 1896 | 1897 | 1898 | 1899 | 1900 | 1901 | 1902 | 1903 | 1904 | 1905 | 1906 | 1907 | 1908 | 1909 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Asphalt | 9 | 7 | 7 | 4 | 3 | 4 | 14 | 28 | 27 | 25 | 24 | 26 | 33 | 30 | 39 | 76 | 106 | 86 |
| Asphalt Block | | | | | | | | | | | | | 1 | 1 | 1 | 4 | 6 | 11 |
| Bitulithic | | | | | | | | | | | | | 4 | 9 | 18 | 28 | 26 | 33 |
| Brick | | | | 2 | 6 | 16 | 13 | 23 | 13 | 7 | 11 | 10 | 12 | 8 | 8 | 8 | 11 | 9 |
| Gravel Roadways | | | | | | 16 | | 1 | 1 | | | | | | | | | |
| Cobble Stone Pavements | 5 | | | | | | | | 1 | | | | | | | | | |
| Stone Setts | | | | | | | | | | 1 | | 1 | | 1 | | 1 | | |
| Macadam Roadways | 1 | | 1 | 4 | 5 | 3 | 13 | 24 | 14 | 16 | 24 | 14 | 14 | 12 | 4 | 6 | 5 | 2 |
| Tar Macadam Pavements | | | | | | | | | 1 | 1 | 6 | 12 | 8 | 9 | 2 | 2 | | |
| Cedar Block Pavements | 20 | 14 | 6 | 7 | 3 | 7 | 19 | 20 | 24 | 12 | 10 | 6 | 3 | 6 | 3 | 1 | 1 | |
| Concrete Pavem'ts | | | | 3 | | | 1 | | | | 1 | 2 | 1 | 2 | 2 | 6 | 8 | 6 |
| Scoria Block | 1 | | | | | | | | | | | | | | | | | |
| Concrete and Stone Curb | | | | | | | | | | 1 | 3 | 4 | 6 | 15 | 23 | 42 | 93 | 65 |
| Wood Curb | | | | | | | | | | 3 | 1 | 1 | | | | | | |
| Concrete Walks | 6 | 3 | 6 | 11 | 6 | 13 | 25 | 37 | 85 | 118 | 188 | 236 | 247 | 276 | 359 | 428 | 430 | 392 |
| Brick Walks | | | | | 1 | 8 | 14 | 4 | 1 | 2 | 1 | | 1 | 1 | 1 | | 2 | |
| Stone Flag Walks | 1 | 1 | | | | | | | | | | | | | | | | |
| Grading | | | | | | | | | | | | | 2 | 2 | 1 | 2 | 6 | 11 |
| Wood Block | | | | | | | | | | | | | | 2 | | 4 | | |
| Vitrified Block | | | | | | | | | | | | | | 3 | 2 | 13 | 13 | 10 |
| | 43 | 25 | 20 | 31 | 24 | 67 | 99 | 137 | 167 | 186 | 269 | 312 | 332 | 377 | 463 | 621 | 707 | 625 |

## TABLE No. 11.

### Track Allowance Reconstruction.

| Name. | From. | To. | Description. | Len'th | Cost. |
|---|---|---|---|---|---|
| | | | | | $ c. |
| Arthur St..... | Bathurst..... | Ossington.... | Granite Setts | 3,975 | 32,402 39 |
| Shaw St..... | Queen..... | King..... | " | 1,271 | 11,441 19 |
| Avenue Road.. | Bloor..... | Davenport.... | " | 2,404 | 22,837 76 |
| Queen St .... | Don..... | Broadview.... | " | 1,117 | 7,822 76 |
| Gerrard St.... | Pape..... | Subway..... | Mack Block. | 702 | 6,028 14 |
| Yonge St..... | College..... | Bloor..... | Variety..... | 3,756 | 20,075 10 |
| College..... | Yonge..... | McCaul..... | Old and new Scoria. | 2,806 | 26,138 76 |
| | | | | | 126,746 10 |

## TABLE No. 12.

### Concrete Curbs.

| Street. | Side. | From. | To. | Length. | Cost Per Foot. | Actual Cost. | Total Cost. |
|---|---|---|---|---|---|---|---|
| | | | | | | $ c. | $ c. |
| Barton | N | Brunswick | Howland | 257.3 | .30 | 77 19 | 77 19 |
| Brock | W | Bloor | 1,000 feet south | 1,041.0 | .30 | 312 30 | 312 30 |
| Britain | N | George | Sherbourne | 759.0 | .30 | 227 70 | 227 70 |
| Borden | W | Lennox | Bloor | 462.5 | .30 | 138 75 | 138 75 |
| Clarence Square | S.W.N | O. of C | | 849.9 | | 377 89 | 377 89 |
| Dalhousie | E | Gould | Gerrard | 577.0 | .30 | 173 10 | 173 10 |
| Grace | W | 300 feet south of Bloor | 345 feet south | 337.0 | .32 | 107 84 | 107 84 |
| Glen | E | Bridge | North side Highlands | 337.0 | .32 | 107 84 | 107 84 |
| Riverdale | S | Logan | Carlaw | 608.5 | .30 | 182 55 | 182 55 |
| Sarah and Roden Place | W.N | Belmont | McMurrich | 301.7 | .30 | 90 51 | 90 51 |
| Shaftesbury | S | Ottawa, O. of C | Summerhill | 578.6 | | 249 45 | 249 45 |
| Wells | S | Kendal | Brunswick | 326.0 | | 100 20 | 140 70 |
| | | | | | | 2,145 32 | 2,185 82 |

## TABLE No. 13.

Table Showing Mileage of Pavements in Toronto and Annexations 1909.

| Class. | Old Toronto including Deer Park and E. Toronto. (Actual). | Annexations. | | | | | | | | Total Lineal Feet. | Total Mileage. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | West Toronto. (Approx.) | Dovercourt and Earlscourt. (Approx.) | Wychwood and Braeondale. (Approx.) | Chester. (Approx). | Midway. (Approx.) | Eastern addition to E. Toronto. (Approx.) | Paved Lanes Old Toronto. (Actual) | | |
| Cedar Block | 87,715 | 4,180 | | | | | | 1,528 | 93,423 | 17.71 |
| Asphalt | 623,795 | | | | | | | 1,553 | 625,348 | 118.44 |
| Asphalt Block | 17,439 | 4,450 | | | | | | | 21,889 | 4.14 |
| Bitulithic | 109,156 | | | | | | | | 109,156 | 20.68 |
| Macadam | 221,261 | 15,440 | | | | 4,430 | 1,300 | | 242,431 | 45.91 |
| Tar Macadam | 20,471 | | | | | | | | 20,471 | 3.88 |
| Treated Wood Block | 2,225 | | | | | | | | 2,225 | 0.42 |
| Concrete | 3,690 | | | | | | | 6,784 | 10,474 | 1.98 |
| Gravel | 61,250 | 30,395 | 6,000 | 7,500 | | 6,550 | | | 111,695 | 21.15 |
| Brick | 126,964 | | | | | | | 7,204 | 134,168 | 25.41 |
| Granite Block | | | | | | | | 300 | 300 | .05 |
| Scoria | 1,147 | | | | | | | 750 | 1,897 | .36 |
| Cobble Stone | | | | | | | | 2,797 | 2,797 | .53 |
| Tamarac | 351 | | | | | | | | 351 | .07 |
| Stone Setts | 7,425 | | | | | | | | 7,425 | 1.40 |
| Mud Rd. | 346,589 | 152,460 | 81,990 | 55,585 | 41,045 | 69,159 | 21,090 | | 767,918 | 145.44 |
| Total Lineal Feet | 1,629,478 | 206,925 | 87,990 | 63,085 | 41,045 | 80,139 | 22,390 | 20,916 | 2,151,968 | |
| Total Mileage | 308 61 | 39.19 | 16.67 | 11.95 | 7.77 | 15.18 | 4.24 | 3.96 | 407.57 | 407.57 |

# Bridges, Docks and Special Works.

City Engineer's Department,
Toronto, December 31st, 1909.

*C. H. Rust, Esq., City Engineer, Toronto:—*

Dear Sir,—The following report shows in detail the work undertaken by the Bridges and Docks Branch of the Department during the year ending December 31st, 1909.

## STATISTICS.

In all, this Department has charge of thirty-nine bridges and five subways, eight of these being in districts recently annexed to the City. Of the bridges twenty-three are of steel or iron construction, fourteen of wood and two of reinforced concrete. At the five points where streets pass under the rights of way of the various railways, the tracks are carried on through lattice or plate girder bridges.

There are but two swing bridges in the City, only one of which is operated, viz., Lamb's Bridge crossing over Keating's Channel. This was opened 2,778 times during the year, or an average of 12.13 times per day during the season of navigation, from May 1st to December 15th. The wages of the two tenders at $1.50 per day each and the cost of maintenance of the swinging gear, amounted to $779.58, equivalent to 28 cents for each time the bridge was opened. I would recommend that in future the bridge be operated from May 15th to September 15th only. Table 4, accompanying this report, gives further details of the operation of Lamb's Bridge.

Tables 1 and 2, accompanying this report, give the details of the various bridges and subways.

The wharves on Lake Street and Harbor Square, from Yonge Street westerly to York Street; those at the foot of Spadina Avenue and at the foot of Princess Street, and also those at Centre Island and Ward's Island, are owned and maintained by the City. They are all of timber construction, and rest either on timber cribs or piles.

## GENERAL.

More bridge work has been carried out during the past year than ever before in the history of the City. Lansdowne Avenue Subway and the substructure for the Dundas Street Bridge widening have been completed: while work on the substructure of the Wilton Avenue Bridge and on the superstructure for the Dundas Street Bridge is well under way. Harbord Street Bridge has been completed, with the exception of the parapet railing and the dressing of the concrete surfaces. Plans for the Queen Street Viaduct crossing the River Don are well under way.

In all five steel bridges and two wooden bridges have been cleaned and painted, two wooden bridges have been reconstructed, and seven bridges have had the floor planking renewed. Minor repairs have been made to six bridges.

On account of the extraordinary amount of work it has been necessary to increase the staff of this branch of the Department and to organize a field staff to take over the outside work which has formerly been done by other branches. It has also been necessary to provide for more efficient inspection of the bridges, and with this end in view, an additional inspector has been employed.

## STANDARD SPECIFICATIONS.

During the year complete standard specifications for bridges have been prepared. While these will necessarily have to be revised from time to time, they will insure a uniform system of loading and a uniform standard of workmanship for all City bridges. The specifications classify bridges according to loading as follows:—

Class A.—Highway bridges with electric railway tracks.

Class B.—Highway bridges without electric railway tracks.

Class C.—Electric railway bridges.

Class D.—Foot bridges.

The loading finally adopted after considerable study of the class of traffic to be carried, and after consultation with the various standard bridge specifications, was briefly as follows:—

For electric railway tracks, forty-ton cars with an allowance for impact on the floor system equal to the difference between the live and dead loads for members carrying single track, or one-half this amount

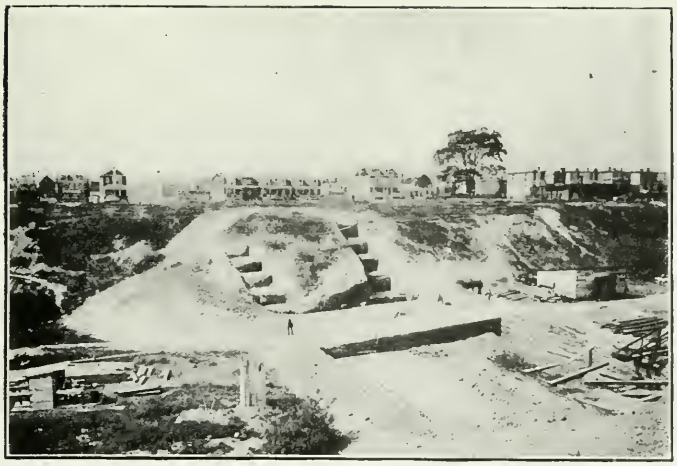
for member carrying double tracks. On main trusses this is reduced to a uniform load varying from 2,250 to 1,400 pounds per lineal foot according to the span. For other parts of the structure, a twenty-ton road roller for the floor system, with uniform loads for trusses varying from 135 to 80 pounds per square foot according to span. Foot bridges and sidewalks are figured for live loads varying from 100 to 40 pounds per square foot. The distribution of the concentrated loads is given on Diagram III. accompanying this report.

The loading specified, with the exception of street railway tracks, is about equivalent to Cooper's Class A1 and A2, or the Dominion Government Class 1 for highway bridges. Considering impact, the loading on street railway tracks would give about the same sections as Cooper's Specifications, but would exceed the Dominion Government Specifications by the amount of the impact. Actual tests carried out on the Dundas Street Bridge (the results of which are given in Table 5) show that bridges carrying this class of traffic are subjected to considerably more impact than is generally supposed. In the case of badly maintained track, the impact on the floor members was shown to be as high as 100 per cent. of the live load for speeds of fifteen miles per hour.

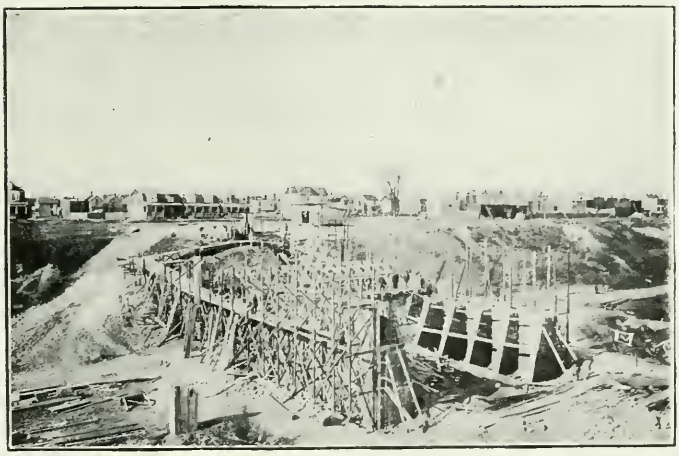
As regards unit stresses and details of construction, the City Specifications are equal to the best practice prevailing in highway bridge construction, and are inferior to the most modern railway bridge specifications only in a few minor details. The unit stresses in timber, while higher than those usually specified, are in accordance with the latest recommendations of the American Railway Engineering and Maintenance of Way Association.

## LANSDOWNE AVENUE SUBWAY.

The new subway on Lansdowne Avenue, under the tracks of the Grand Trunk Railway and the Canadian Pacific Railway, was completed, with the exception of the pavement, on May 19th. It has a total length of 900 feet, including the approaches. Eight tracks are carried across the street on through plate girder bridges, four of these being Canadian Pacific and four Grand Trunk. All the bridges are of the through plate girder type, those of the C. P. R. having a solid steel floor of 7/16-inch plate carried on transverse 18-in. 55 lb. I-beams spaced 18 in. centres. The Grand Trunk bridges have wooden ties covered with three-inch plank. These bridges were figured and designed in accordance with the C. P. R. Specifications and Cooper's Specifications, respectively. The retaining walls are of monolithic concrete construction resting on fine sand.



Harbord Street Bridge—Photo 1.



Harbord Street Bridge—Photo 4.

Harbord Street Bridge—Photo 7.

The total cost of the subway (exclusive of property damages), was $119,778.98, as follows:—

| | |
|---|---|
| Excavation and substructure | $49,115 54 |
| Steel | 54,517 71 |
| Shoring tracks and maintaining traffic, sewers, pavements | 14,942 15 |
| Sundries | 1,203 58 |

The Godson Contracting Co., Toronto, were the contractors for the substructure, and the Cleveland Bridge and Engineering Company of Darlington, England, for the superstructure.

## DUNDAS STREET BRIDGE WIDENING.

Tenders were called for on May 4th. for the widening of the bridge on Dundas Street over the tracks of the C. P. R. and G. T. R. The original plan was to spread the trusses and strengthen them where necessary, and to introduce a new floor system. This, however, was found to be unnecessarily expensive and practically prohibitive if traffic was to be maintained. Accordingly the plan of building a new bridge on the north side of the present bridges was adopted. This will carry street railway traffic only.

The bridges are of the through plate girder type with wooden ties on longitudinal steel stringers. The west bridge is 342 feet 2¾ inches long on a 33° 20′ skew, and the east bridge is 86 feet 8 inches long on a 43° 20′ skew. The girders are 26 feet, centre to centre, with a minimum of 22 feet 6 inches clearance over the railway tracks. The bridges were designed in accordance with the City of Toronto Specifications, and will weigh approximately 185 tons.

The abutments are of monolithic concrete construction, and at the date of writing are completed, with the exception of the ballast walls. It was necessary to carry the footings considerably deeper than was first contemplated in order to get a satisfactory foundation. The soil is fine sand fairly well cemented.

The contract for the superstructure was let to Mr. F. W. Sage, the contract price being $31,065. The substructure is being done by day labor.

## HARBORD STREET BRIDGE

A reinforced concrete arch has been built on the extension of Harbord Street crossing over Beatrice Street. It has a clear span of 34 feet

6 inches, and a clear height of 23 feet over the proposed grade of Beatrice Street. The width is 54 feet clear between the parapet railings.

The arch is full centred, 15 inches thick at the crown, and is reinforced with ¾-inch round rods spaced 12 inches centres. The retaining walls are 24 inches thick, heavily reinforced with square twisted rods and braced by counterforts at 9-foot centres.

An extremely satisfactory foundation was secured which considerably reduced the cost of the work, so that it will be completed well below the contract price. Borings taken at the site showed about 4 feet of brown clay and 10 to 20 feet of hard blue clay. Under this is a stratum of fine sand. The original plans provided for piles under both footings of the arch, but these were found to be unnecessary, except at the south corner of the east abutment, where an old well excavation was encountered. A total of $1,368.02 was saved on this account.

The work is now completed, except for the parapet railing, which will be built in the spring.

The General Contracting Company, Limited, of Toronto, were the contractors for this work, the contract price being $14,440.

## WILTON AVENUE BRIDGE.

Work is now under way on the new bridge on the extension of Wilton Avenue crossing over the River Don. The bridge will be 370 feet long with a 42-foot roadway and 6-foot sidewalks. The river span will be a three-hinged plate girder arch span 124 feet, centre to centre of pins, with two deck plate girder approach spans at each end. The flooring will be of reinforced concrete paved with asphalt. The substructure will be of monolithic construction, reinforced for temperature stresses.

The work is designed in accordance with the City of Toronto Specifications, Class A loading.

The contract for the superstructure has been awarded to the Dickson Bridge Company, Limited, of Campbellford, Ont. The foundations are being put in by day labor on account of the uncertainty of the subsoil. Borings on the east bank of the river have shown the soil to consist of fine sand for a depth of over 80 feet below the water level. The footings will be carried 6 feet below mean low water and supported

on piles. On the west bank the rock is only a few feet from the surface, being overlaid by a hard blue clay.

### QUEEN STREET HIGH LEVEL BRIDGE.

Plans for the new Queen Street Viaduct are under way. It is hoped that this work may be completed for traffic on Queen Street by the end of the year 1910.

### WINCHESTER STREET BRIDGE.

The bridge over Winchester Street, crossing over the Don River, has been reconstructed, the whole superstructure being renewed and the old cribs being repaired where necessary. The bridge has three through truss spans, the total length being 183 feet. The entire superstructure, with the exception of the floor-beams, is of wood, it being considered unwise to provide a permanent bridge at this point, as there is no doubt that in the near future it will be advisable to construct a high level bridge crossing the ravine.

The work was done by day labor at a cost of $3,480.29, as follows:—

| | |
|---|---|
| Labor | $1,553 03 |
| Lumber | 1,299 55 |
| Iron and steel | 429 18 |
| Painting | 51 65 |
| Sundries | 146 88 |
| Total | $3,480 29 |

### SPADINA ROAD BRIDGE.

The Spadina Road Bridge, crossing over the Russell Hill Drive, has been reconstructed. The bridge is a wooden trestle, with 41-foot intermediate through truss spans, having a total of 305 feet 8 inches. The entire floor system was renewed, 15-inch I-beams being used in place of the old wooden floor beams. The trusses were not renewed, but new members were inserted where necessary. In a number of cases it was found that the lower chords and the end posts had rotted badly at the point where they join. A number of the trestle posts were found to have rotted at the tops. These were cut off and new pieces spliced on them.

The level of the floor of the bridge was raised 2 feet 9 inches so as to provide better bracing for the trusses. This also eased the approach grades somewhat.

The work was done by day labor at a cost of $3,302.87, as follows:—

| | |
|---|---|
| Labor | $1,374 32 |
| Lumber | 1,413 02 |
| Bolts and nails, etc | 128 53 |
| Steel | 387 00 |
| Total | $3,302 87 |

MAINTENANCE AND INSPECTION OF BRIDGES.

Heretofore the inspection of bridges has been far from satisfactory, due to lack of proper facilities. An item for this purpose has been included in the estimate for 1910, which, if passed, will enable the Department to maintain an efficient system of inspection of all the bridges. In the past it has been impossible to do more than inspect the floors, with merely superficial inspections of the steel. It is my intention, during the coming year, to have monthly inspections of all the floors and complete annual inspections of the steel and masonry.

Considerable attention has been paid during the past year to the cleaning and painting of the steel bridges. A number show serious corrosion, those crossing over railway tracks especially. Excessive corrosion is also evident on all the bridges crossing over the River Don, possibly on account of the gases from the large quantity of sewage carried by the river. A notable example of this is the Queen Street Bridge, in which some of the lower chord angles have lost 50 per cent. of their cross sectional area in ten years.

In all, five steel bridges were cleaned and painted during the year, viz.: Eastern Avenue, Gerrard Street, Hallam's Bridge, Lakeshore Road Bridge and Huntley Street. The railing only on the North Glen Road Bridge was painted. Two wooden bridges were painted, viz.: Crawford Street and Winchester Street.

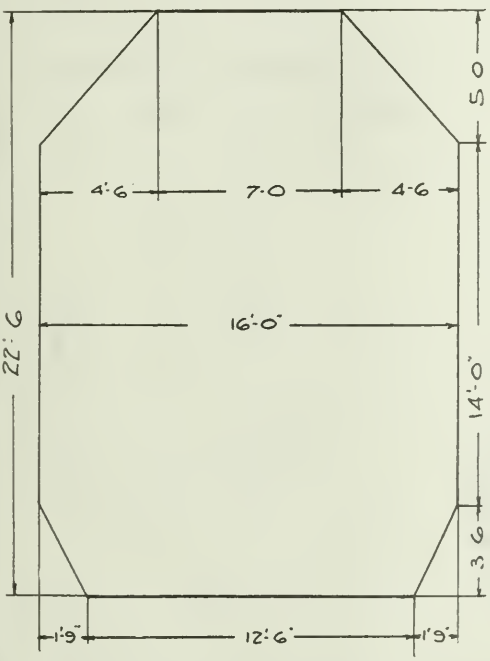
Sherwin-Williams' metalastic black paint (graphite) was used on most of the work. Hallam's Bridge was painted with Canada Paint Company's grey graphite. Both of these paints have good covering capacity, and were satisfactory in all respects.

"Carbonizing Coating," manufactured by the Goheen Manufacturing Company, Canton, Ohio, was used on the Eastern Avenue Bridge with excellent results. The paint has good covering capacity and lasting qualities if applied in warm weather. This is, however, offset somewhat by the high price.

# DIAGRAM I

MINIMUM CLEARANCE

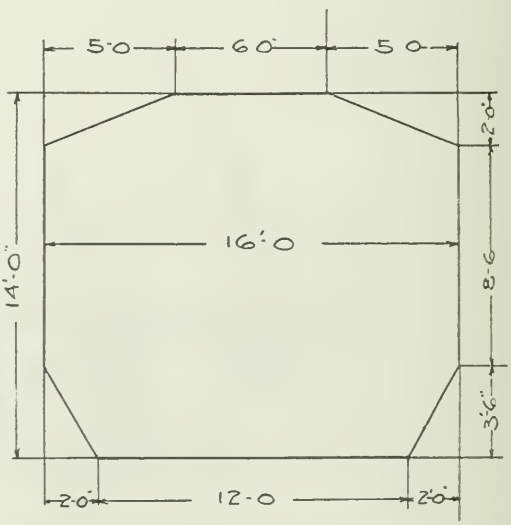
STEAM RAILWAYS




# DIAGRAM II

MINIMUM CLEARANCE

ELECTRIC RAILWAYS



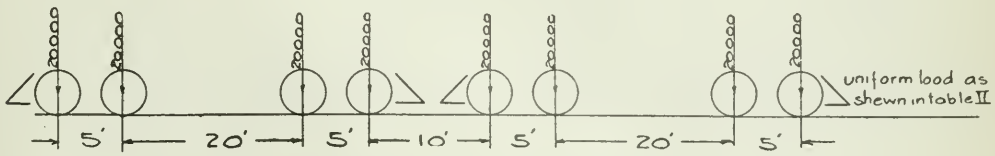

CITY ENGINEERS OFFICE
TORONTO
DEPT OF BRIDGES & DOCKS
JAN 2nd 1910

PSH

# DIAGRAM III

## STANDARD LOADING FOR BRIDGES

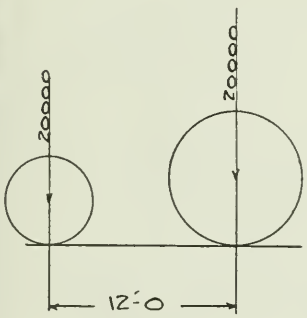
## ELECTRIC RAILWAYS



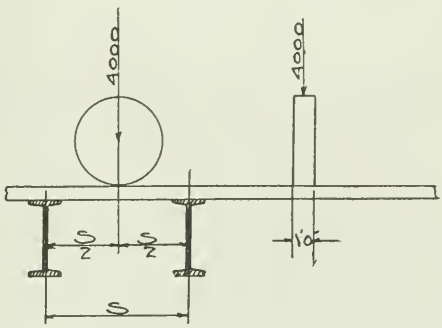

Figures for Two Rails

### ROAD ROLLER

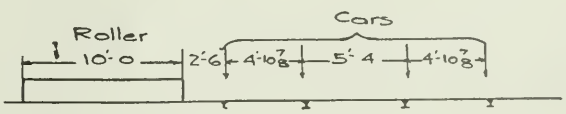
Load to be considered as distributed over a width of 10ft




### CONCENTRATED WHEEL LOAD FOR FLOORING




## POSITION OF LOADS FOR MAXIMUM FL. BM CONCENTRATION

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DEPT OF BRIDGES & DOCKS
JAN 2nd 1910

Canada Paint Company's "G. T. P. Magnetic" paint was used on North Glen Road Bridge, but is not satisfactory for a finishing coat as the surface is rough.

"Elaterite," manufactured by the Elaterite Paint and Manufacturing Company of Des Moines, Iowa, was used on the west approach spans of the Gerrard Street Bridge. The resulting finish is good, but the paint lacks covering capacity, and on account of its sticky nature is very expensive to apply.

On both the Gerrard Street and Huntley Street Bridges all pockets that would hold water were filled with concrete. The steel at these points invariably showed excessive corrosion in spite of the drip holes that are supposed to drain them. The concrete, however, will prevent further damage.

The entire flooring has been renewed on three bridges, viz.: Eastern Avenue, Humber River and Strachan Avenue, a total of 11,810 square feet. On both the Humber River and Eastern Avenue Bridges the joists were renewed, those on Strachan Avenue being replaced only where absolutely necessary.

The top wearing course on the floors of four bridges was renewed, viz.: Beach Avenue, North Glen Road, Gerrard Street and Summerhill Avenue, a total of 30,140 square feet. Minor repairs were made to the floors of Dundas Street, Moore Park and Weston Road Bridges.

With the constantly increasing cost of lumber, I would recommend that concrete be used for flooring on all new bridges that are built. Taking the figures for the past ten years, the top wearing course on the wooden bridge floors (2-in. red pine) has a life of 2.58 years, and in all cases fails by wearing through. The lower course of planking (3-in. red pine), and the joists fail by rotting after an average life of 8.5 years. Based on these figures the annual cost of maintenance of bridge floors would be 5.60 cents per square foot, equivalent to a depreciation of 17.78 per cent., all figures being based on present prices of labor and material.

On September 25th a serious break was discovered in the Queen Street Bridge, the lower chord at the west end of the south truss being found broken through. Fortunately the bridge did not collapse, probably on account of the stiffness of the upper chord and end post connection, aided by the arching effect of the whole chord and the connections of the buckled plate floor.

The broken chord was of box section, composed of four 5-in. x 3½-in. x ½-in. angles latticed, all of which broke through the rivet holes of the lattice bars. Figure 3 shows the damaged chord before being removed from the bridge, and Diagram IV. shows the location of the fracture.

The bridge was jacked up at the first two panels from a temporary crib built in the river, and a new chord was built and riveted in place. This work was done jointly by the Canada Foundry Company, Limited, and our own men in the remarkably short time of 46 hours from the time the work was commenced until the bridge was opened for traffic, jacked up at the two panel points with the new chord bolted in place.

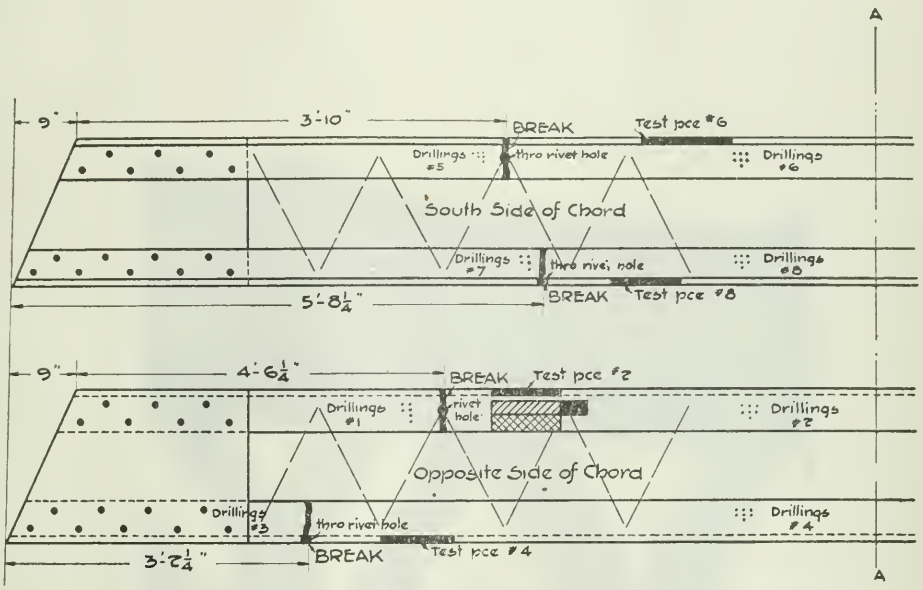
The fracture was probably caused by temperature stresses, since the rollers were badly rusted, and it would require a considerable force to move them. From the dead load, the chord would have a tensile stress of 150,000 pounds in all, or 9,375 pounds per square inch. Figuring the live load at 75 pounds per square foot, the stress from this would be 4,690 pounds per square inch. This would not be sufficient to rupture the member.

The Canadian Inspection Company made a very complete test of the broken chord. The tensile stress tests were good, being up to standard practice. The bending tests on flat pieces cut from the angles were satisfactory, but the angles themselves cracked after bending 40 degrees. Chemical analysis showed the material to be Bessemer steel with about 0.1 per cent. of both sulphur and phosphorus. There is no doubt that the high sulphur and phosphorus was the cause of any brittleness there may have been in the steel. Table 6, accompanying this report, shows the summary of the tests made.

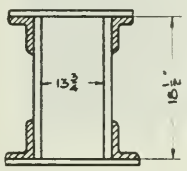
The wooden approaches to the Main Street Bridge, crossing over the G. T. R., were repaired in the early part of the year, this work being done by day labor, a special appropriation being voted for this purpose. The bridge itself is maintained by the Grand Trunk.

The bridge leading from Hanlan's Point to Turner's Baths was overhauled and repaired, after one of the spans had collapsed. The structure is of wood resting on wooden cribs, and has long survived its natural life, hence the failure was not unexpected. I would recommend that the bridge be removed and the lagoon filled.

On the whole the bridges are in a fairly good state of repair, with the exception of a few which, on account of projected improvements, have




Section AA




TENSILE TESTS

BEND TEST
NICK TEST

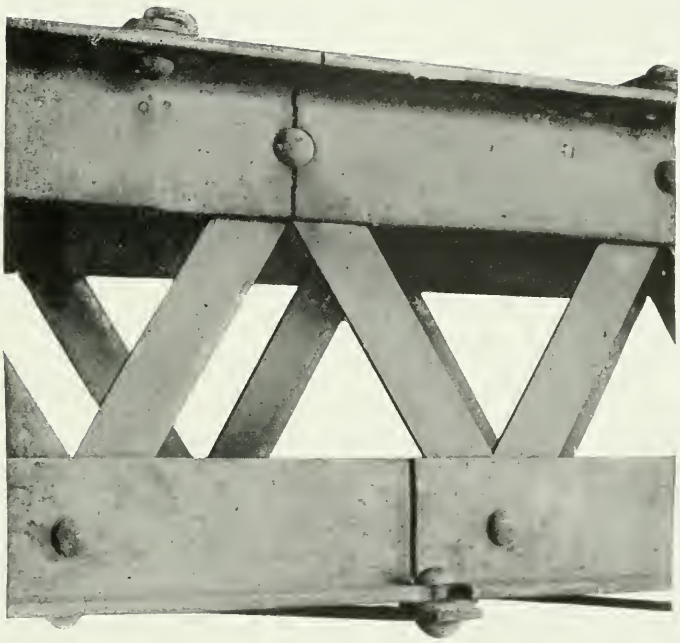
DRIFT TEST

Chord Angles 5" × 3½" × ½"
Lattice Bars 2½" × ⅜"
Rivets ⅞" dia

## QUEEN ST BRIDGE

DIAGRAM SHOWING LOCATION OF FRACTURE IN CHORD AND TEST PIECES CUT OUT BY THE CANADIAN INSPECTION CO., LIMITED

DIAGRAM IV



Broken chord—Queen Street Bridge.

been left without permanent repairs. Among these are Lamb's Bridge and the Cherry Street Bridge, both of which will be removed should the Ashbridge's Bay improvement be carried out. No repairs, other than those absolutely necessary, have been made to those bridges over the Esplanade, which will be removed if the Grade Separation Appeal is favorable to the City. A number of the bridges in the districts recently annexed to the City are in a deplorable state of repair, but the lack of funds has prevented improvement during the past year.

## MAINTENANCE OF WHARVES AND DOCKS.

All the City wharves, with the exception of Dufferin Street and Princess Street, have required minor repairs during the past year. More extensive repairs were made to the Yonge Street and Harbor Square Docks, and the wharf of the Toronto Ferry Company at Centre Island.

The planking on the south end of the Yonge Street Wharf was renewed, the old planks being badly worn. Minor repairs were made to the balance of the wharf.

The south wharf at Harbor Square is practically rebuilt from the water level, having failed under a consignment of scoria blocks which had been unloaded and left standing on the dock. The wharf was founded on wooden cribs along the face, but rests on filled ground at the back. Serious settlement of the back portion of this wharf made it necessary to entirely renew the joists and flooring.

The Toronto Ferry Company wharves at Centre Island and Ward's Island were repaired during the year, the flooring of the former being completely renewed.

Repairs were made to the cribwork of the dock on Lake Street at the foot of Bay Street, this being damaged by the S. S. "H. M. Pellatt." The cost of repairs to this was $375.10, which has been charged against the owners of this boat. Some slight damage was also done to the same cribs by the S. S. "Turbinia," the cost of repairs being paid by the owners.

Small wharves were built at the Lakeside Home at Hanlan's Point and at the foot of York Street. The latter was for the use of small boats only.

Several old cribs were removed from the water-front at the foot of Yonge Street. Although these were built of heavy timbers and

ballasted with stone they were successfuly removed by means of a dipper dredge worked so as to break the sides of the cribs.

### BROADVIEW AVENUE LAVATORY.

A new underground public lavatory is being constructed, under the supervision of this branch of the Department, at the corner of Queen Street and Broadview Avenue. At the date of writing the excavation is completed and the concrete walls are under construction.

Contracts have been let as follows:—

Excavation, drainage, concrete and masonry and tile work to Wm. Forbes & Sons, for $5,590.

Joiner work, painting and glazing, to Wm. Forbes & Sons, for $540.

Steel work, gates and railings, to William Goeger, for $720.

Heating and ventilation, plumbing and electric wiring, to John Ritchie Plumbing and Heating Company, for $3,700.

### ACCIDENTS.

The Department has been unfortunate in having three of its employees more or less seriously injured during the year.

George Chambers, carpenter, working on Yonge Street Wharf, fell, breaking one of the bones of his wrist.

James Latimer, carpenter, working on Dundas Street Bridge, was injured by a falling bank in the excavation for the west abutment.

William White, foreman carpenter, fell from the Spadina Road Bridge, sustaining serious injuries.

A total of $311.21 has been paid to employees laid off on account of accidents sustained.

### COST OF LABOR AND MATERIALS.

Table 3, accompanying this report, gives the average wages paid during the year, with averages of prices paid for materials. Tables 7 to 10 show in detail the cost of maintenance of the bridges and docks.

Respectfully submitted.

R. E. CHADWICK,
*Bridge Engineer.*

| | Sidewalks. | | Remarks. |
|---|---|---|---|
| | No. | Width | |
| | | Ft.Ins. | |
| Bathurst | 2 | 8 9 | Owned and maintained by G.T.R. |
| Beach Av | None | .... | |
| Berkeley | " | ..... | |
| Cattle M | " | ..... | Swing Bridge, not operated. |
| Cherry S | ..... | ..... | Built by Parks' Department. |
| Chippewa | 2 | 4 6 | Reconstructed 1908. |
| Crawford | None.. | ..... | |
| Danforth | 1 | 7 | |
| Dundas S | 1 | 7 | Under construction. |
| | 2 | 7 1½ | |
| Eastern | | | |
| Gerrard | 2 | 6 6 | |
| | None.. | ..... | |
| Gerrard S | 2 | 4 6 | Reconstructed 1899. |
| Glen Ro | 2 | 4 9 | " 1902. |
| Glen Ro | 1 | 22 | |
| Hallam's | ..... | .. .. | Total width 66 ft., under construction. |
| Harbord | 2 | 6 | |
| Huntley | 2 | 6 6 | Built and maintained by G.T.R. and C.P.R. |
| John St. | 1 | 6 6 | |
| Lakeshor | None.. | ..... | Swing Bridge. |
| Lamb's I | | | |
| Main St. | 2 | ..... | Maintained by G.T.R. |
| | None.. | ... .. | |
| Park Dri | 2 | 10 | |
| Queen St | | | |
| Riverdal | ..... | ..... | |
| Roxboro | None.. | ..... | |
| St. Clair | 2 | 6 6 | Maintained jointly by City and by County of York. |
| | None.. | ..... | |
| St. Clair | 2 | 4 6 | |
| Shaw St. | 2 | 6 | |
| Sherbour | 2 | 8 9 | |
| Spadina | 2 | 4 2 | Reconstructed 1909. |
| Spadina | 2 | 6 | |
| Strachan | | | |
| Summerl | None.. | ..... | |
| Turner's | ..... | ..... | |
| Wallace | ..... | ... . | |
| Wilton A | 2 | 6 6 | Under construction. |
| Winchest | 1 | 6 | Reconstructed 1909. |
| Weston I | | | |
| | 1 | 6 | Constructed by Town of West Toronto. |
| York St. | 2 | 7 6 | Constructed by C.P.R.. City pays one half cost of construction. |

TABLE 1.

LIST OF BRIDGES, 1909.

| Location. | Class. | Built. | Type. | Material. | | | Length. | Roadway Width. | Sidewalks. | | Remarks. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Substructure. | Superstructure. | Flooring. | | | No. | Width | |
| | | | | | | | Ft. Ins. | Ft. Ins. | | Ft.Ins. | |
| Bathurst St., crossing over tracks of G.T.R. | B | | Through Truss | Stone Masonry | Steel and Iron | Wood | 170 | 18 | 2 | 8 9 | Owned and maintained by G.T.R. |
| Beach Ave., south of Kingston Road | B | * | Trestle | Wood | Wood | " | 142 | 16 | None | | |
| Berkeley Ave., north of Kingston Road | B | * | " | " | " | " | 132 | 16 | " | | |
| Cattle Market Bridge, crossing over tracks of G.T.R. and C.P.R. | D | 1893 | Through Truss | Stone Masonry | Steel | " | 160 | 20 | " | | |
| Cherry St., crossing over River Don | B | 1897 | " | Wood Cribs | " | " | 160 | 16 | " | | Swing Bridge, not operated. |
| Chippewa Ave., Centre Island | D | 1909 | Arch | Con. on Wood Piles | Concrete | Concrete | 60 clear | 9 | | | Built by Parks' Department. |
| Crawford St., crossing over Bellwoods Park | B | 1884 | Trestle | Wood | Wood | Wood | 308 | 19 | 2 | 4 6 | Reconstructed 1908. |
| Dantorth Ave. | B | * | " | " | " | " | 60 | 20 | None. | | |
| Dundas St., crossing over C.P.R. and G.T.R. | A | 1893 | Through Truss. | Stone Masonry | Steel | " | 422 6 | 30 | 1 | 7 | |
| " " " | C | 1909 | Through Plate Girder | Concrete | " | " | 428 10¾ | 26 | 1 | 7 | Under construction. |
| Eastern Ave., crossing over River Don | B | 1900 | Through Truss | " | " | " | 138 | 21 | 2 | 7 1½ | |
| Gerrard St., crossing over River Don | A | 1889 | Through Truss, D.L.G. Approaches. | Stone Masonry | " | " | 426 6 | 27 to 32 | 2 | 6 6 | |
| Gerrard St., east of Coxwell Ave. | B | * | Trestle | Wood | Wood | " | 85 | 17 | None. | | |
| Glen Road, south, crossing over Rosedale Valley Road. | B | 1877 | " | Stone Masonry | Steel | " | 393 | 17 | 2 | 4 6 | Reconstructed 1899. |
| Glen Road, north, crossing over Park Drive | A | * | " | " | " | " | 656 8 | 23 | 2 | 4 9 | " 1902. |
| Hallam's Bridge, crossing over Long Pond, Centre Island | D | 1893 | Arch | " | Steel & Cast Iron | " | 150 | | 1 | 22 | |
| Harbord St., crossing over Beatrice St. | A | 1909 | " | Concrete | Concrete | Filled | 35 clear | | | | Total width 66 ft., under construction. |
| Huntley St., crossing over Rosedale Valley Road | B | 1884 | Trestle | Stone Masonry | Steel | Wood | 439 | 17 6 | 2 | 6 | |
| John St., crossing over tracks of G.T.R., C.P.R., and Union Station Co. | B | 1897 | Through Truss. | " | " | " | 738 | 30 | 2 | 6 6 | Built and maintained by G.T.R. and C.P.R. |
| Lakeshore Road, crossing over Humber River | B | 1909 | " | Concrete | " | " | 165 | 21 6 | 1 | 6 6 | |
| Lamb's Bridge, crossing over Keating's Channel | B | 1903 | " | Wood | Wood | " | 152 | 11 9 | None. | | Swing Bridge. |
| Main St., crossing over G.T.R. | B | * | Through Plate Girder | " | Steel, Wood Approaches | " | | | 2 | | Maintained by G.T.R. |
| Park Drive Bridge, crossing over River Don | B | * | Through Truss. | " | Wood | " | 180 | 21 | None. | | |
| Queen St., crossing over River Don | A | 1909 | " | Stone Masonry | Steel | Steel Plate | 132 6 | 42 | 2 | 10 | |
| Riverdale Park, crossing over River Don | D | 1908 | " | Wood | " | Wood | 127 6 | 10 | | | |
| Roxborough St., east, crossing over Park Drive Reservation | B | 1894 | Trestle | " | Wood | " | 90 | 18 | None. | | |
| St. Clair Ave., east of Yonge St. | B | * | " | Stone Masonry | Steel | " | 352 | 17 | 2 | 6 6 | Maintained jointly by City and by County of York. |
| St. Clair Ave., west of Spadina Road | B | * | Through Truss | Wood | Wood | " | 76 | 16 6 | None. | | |
| Shaw St., crossing over Sulley Crescent | B | 1885 | Trestle | " | " | " | 358 | 20 | 2 | 4 6 | |
| Sherbourne St., crossing over Rosedale Valley Road | A | 1890 | " | Stone Masonry | Steel | " | 493 | 30 | 2 | 6 | |
| Sherman Ave., crossing over G.T.R. | B | | Through Truss | " | " | " | 170 | 18 | 2 | 8 9 | |
| Spadina Road, crossing over Russell Hill Drive | B | * | " | Wood | Wood | " | 305 8 | 16 | 2 | 4 2 | Reconstructed 1909. |
| Strachan Ave., crossing over G.T.R. and C.P.R. | B | 1878 | " | " | " | " | 343 | 19 6 | 2 | 6 | |
| Summerhill Ave., crossing over Park Drive Reservation | B | * | Trestle | " | " | " | 99 | 14 8 | None. | | |
| Turner's Baths Bridge, crossing from Hanlan's Point to Turner's Baths. | D | 1885 | Through Truss | Wood Cribs | " | " | 560 | 8 | | | |
| Wallace Ave., crossing over G.T.R. and C.P.R. | D | 1908 | " | Concrete | Steel | " | 209 3 | 10 | | | |
| Wilton Ave., crossing over River Don | A | 1909 | Arch, D.D.G. Approaches | " | " | Concrete | 370 | 42 | 2 | 6 6 | Under construction. |
| Winchester St., crossing over River Don | B | | Through Truss | Wood Cribs | Wood | Wood | 183 | 20 | 1 | 6 | Reconstructed 1909. |
| Weston Road, crossing over C.P.R. | B | | Through Truss, Trestle Approaches. | Concrete | Steel Approaches used | " | 475 | 24 | 1 | 6 | Constructed by Town of West Toronto. |
| York St., crossing over G.T.R., C.P.R., and Union Station Co. tracks. | A | 1897 | Deck Plate Girder Tres. | Stone Masonry | Steel | Wood Blocks | 1,193 | 37 6 | 2 | 7 6 | Constructed by C.P.R., City pays one half cost of construction. |

*These Bridges constructed by County or Township, etc., before annexation with City.

TABLE 2.

LIST OF SUBWAYS—1909.

| Location. | Built. | Type of Bridge. | Substructure. | Clear Width. | Minimum Clearance. | Remarks. |
|---|---|---|---|---|---|---|
| | | | | Ft. Ins. | Ft. Ins. | |
| King Street ... | 1889 | Through lattice girder | Stone masonry .... | 66 3 | 13 11 | Five tracks, G.T.R.; four tracks, C.P.R.; Bridges maintained by Railway Companies. |
| Keele Street .... | 1891 | Deck plate girder .... | Stone masonry .... | 50 | 14 2 | Four tracks, C.P.R.; Bridges maintained by Railway Company. |
| Lansdowne Ave.. | 1909 | Through plate girder.. | Concrete ..... | 66 | 15 | Four tracks, G.T.R.; four tracks, C.P.R.; Bridges maintained by Railway Companies—cost charged to City. |
| Queen Street.... | 1898 | Through plate girder.. | Concrete..... | 66 | 14 5 | Three tracks, G.T.R.; two tracks, C.P.R.; Bridges maintained by Railway Companies. |
| Carlaw Ave .... | 1890 | Through plate girder.. | Stone masonry ... | 60 | 14 | Two tracks, G.T.R. |

## TABLE 3.

### Cost of Labor and Materials.

*Labor.*

| | |
|---|---|
| Bridgemen | 25c. per hour. |
| Carpenters | 33c. per hour. |
| Foremen | $3 to $4 per day. |
| Inspectors | $3 to $4 per day. |
| Laborers | 22 2-9c. to 25c. per hour. |
| Painters | 25c. per hour. |
| Teamsters | 55 5-9c. to 65c. per hour. |
| Watchmen | $1.50 per night |

*Materials*

| | |
|---|---|
| Cement | $1.28 per bbl. |
| Lumber, white pine plank | $22.49 to $31.49 (rough), per M. |
| Lumber, white pine plank | $25.57 to $28.57 (dressed), per M. |
| Heavy timbers | $23.49 to $32.49 (rough), per M. |
| Sand | 95c. per cub. yard. |
| Stone (crushed) | $1.25 per ton. |
| Steel, beams and channels, punched | 2¾c. per lb. |
| " reinforcing rods | 2½c. to 3c. per lb. |
| " threaded rods and bolts | 4c. per lb. |

TABLE 4.

DETAILS OF THE OPERATION OF LAMB'S SWING BRIDGE, 1909.

| Period. | Number of times opened. | Daily Record. | | |
|---|---|---|---|---|
| | | Average. | Maximum. | Minimum. |
| May 1 to May 15 | 71 | 4.7 | 11 | 2 |
| May 16 to May 31 | 225 | 14.1 | 40 | 4 |
| June 1 to June 15 | 317 | 21.1 | 48 | 9 |
| June 16 to June 30 | 324 | 20.2 | 44 | 7 |
| July 1 to July 15 | 346 | 23.0 | 42 | 10 |
| July 16 to July 31 | 296 | 18.5 | 34 | 10 |
| August 1 to August 15 | 339 | 22.6 | 33 | 17 |
| August 16 to August 31 | 328 | 20.5 | 44 | 8 |
| September 1 to September 15 | 206 | 13.7 | 25 | 8 |
| September 16 to September 30 | 112 | 7.0 | 15 | 2 |
| October 1 to October 15 | 104 | 6.9 | 20 | 1 |
| October 16 to October 31 | 67 | 4.2 | 9 | — |
| November 1 to November 15 | 19 | 1.3 | 2 | — |
| November 16 to November 30 | 17 | 1.1 | 5 | — |
| December 1 to December 15 | 7 | 0.5 | 3 | — |
| Summary | 2,778 | 12.13 | 48 | — |

| | |
|---|---|
| Cost of operation, wages of tenders | $566.88 |
| Repairs to swinging gear and deck | 212.70 |
| Total | $779.58 |

TABLE 5.

IMPACT TESTS, DUNDAS STREET BRIDGE.

(April 12, 1909.)

*Impact Measured by Deflection of Floorbeam—*

Floorbeams—30-0 span ; 10-4 centre to centre.

Flange, 2 L's—4 in. × 3 in. × $\frac{1}{2}$ in. ; 1 Plate, 10 in. × $\frac{7}{16}$ in.

Web—1 Plate, 24 in. × $\frac{5}{16}$ in.

Track in poor condition.

Average Weight of Cars (empty)—20 tons.

*Deflections Due to One Car Standing.*

| Car Number. | Deflection of Floorbeam. |
|---|---|
| | Inches. |
| 1264 | .242 |
| 1224 | .209 |
| 1224 | .259 |
| 1202 | .236 |

*Deflections Due to Two Cars Standing.*

| Car Number. | | Deflection of Floorbeam. |
|---|---|---|
| East Bound. | West Bound. | |
| | | Inches. |
| 1280 | 1258 | .488 |
| 740 | 908 | .464 |
| 1258 | 1256 | .479 |
| 748 | 734 | .492 |

*Deflections Due to One Car Speed 15 Miles per Hour.*

| Car Number. | Deflection of Floorbeam. |
|---|---|
| | Inches. |
| 1200 | .480 |
| 1306 | .433 |
| 1278 | .472 |

*Deflections Due to One Car Speed 10 Miles per Hour.*

| Car Number. | Deflection of Floorbeam. |
|---|---|
| | Inches. |
| 1244 | .309 |
| 746 | .325 |
| 1216 | .318 |

SUMMARY.

*Average Deflection*—One car standing .... .... .... 0.236 inches.
Two cars standing .... .... .... 0.481 "
One car, 15 miles per hour .... 0.461 "
One car, 10 miles per hour ... 0.317 "

*Average Impact* — Speed, 15 miles per hour ..... 95.3 %
Speed, 10 miles per hour .....34.3 %

TABLE No. 6.

REPORT OF TESTS ON BROKEN CHORD.

QUEEN STREET BRIDGE.

Tests Made by The Canadian Inspection Co.

*See Diagram IV.*

| No. of L. | Description. | Elastic Limit, per Square Inch. | Ultimate Strength per Square Inch | Elongation, % in 8 Inches. | Reduction of Area per cent. | Fracture. | Chemical Analysis. | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Carbon. | Manganese | Phosphor's | Sulphur. |
| 1 | Drilling at break | ..... | ..... | ..... | .... | ..... | .07 | .47 | .105 | .098 |
| | Drilling about 3 feet from break | ..... | .... | .... | ..... | ..... | .09 | .47 | .106 | .098 |
| | Test piece | 42430 | 63400 | 28 | 49 | Sil | .... | .... | .... | .... |
| 2 | Drilling at break | ..... | ..... | ..... | ..... | ..... | .08 | .48 | .099 | .119 |
| | Drilling about 3 feet from break | ..... | ..... | ..... | ..... | ..... | .09 | .52 | .117 | .102 |
| | Test piece | 43755 | 61110 | 27 | 56 | Sil. | .... | .... | .... | .... |
| 3 | Drilling at break | .... | .... | ..... | ..... | ..... | .08 | .43 | .109 | .088 |
| | Drilling about 3 feet from break | ..... | ..... | .... | ..... | ..... | .08 | .46 | .100 | .088 |
| | Test piece | 45595 | 62420 | 26 | 51 | Sil. | .... | .... | .... | .... |
| 4 | Drilling at break | ..... | ..... | ..... | ..... | ..... | .08 | .48 | .106 | .094 |
| | Drilling about 3 feet from break | ..... | ..... | ..... | ..... | ..... | .08 | .49 | .100 | .102 |
| | Test piece | 45430 | 63570 | 28 | 55 | Sil. | .... | .... | .... | .... |

*Drift Test.* A 15-16-inch punched hole pitched two diameters from the sheared edge of test piece was subjected to cold drifting until expanded to one and one-half times its original diameter. The steel would not stand this test, as it cracked considerably around side of hole.

*Angle Test.* A piece of the 5-inch x 3½-inch x ½-inch angle 9 inches long, was tested by bending cold shut under blows of steam hammer. However, the steel would not stand this test as 3½-inch leg of angle failed with a clear sharp fracture longitudinally when lug of angle was bent over about 40 degrees.

*Bending Test.* Test piece cut from 5-inch leg of angle and having planed edges, was subjected to bending test through 180 degrees around a one-half inch circle. As no signs of cracking were visible the

test was continued, and specimen bent flat on itself, it standing the test with only a slight sign of cracking.

*Bending Test after Specimen had been Nicked with a Cold Chisel.* A test piece similar to the one used for above bending test was slightly nicked and bent, it breaking off sharp and showing a bright crystalline fracture of medium grain.

*General.* From the foregoing analysis, it is clearly shown that the material is Bessemer steel, as indicated by the high phosphorus and sulphur. In our opinion, these two elements are undoubtedly the cause of the trouble. At the time the bridge was built, which we understand was some twelve years ago, quite a lot of Bessemer steel was being used in steel bridge fabrication, and we know of cases where physical tests of Bessemer steel have shown the material to be very fine, the phosphorus and sulphur being below .1, yet when the material has been worked in the shop, without any warning, the angles have broken square across, and we have never yet had a satisfactory explanation of the action of Bessemer steel in cases of this kind, other than the high phosphorus and sulphur.

We are rather inclined to think that this break has existed some time. The ultimate strength of these angles is good, and probably the mill analysis showed the material to be below .1, which at that time was allowable in Bessemer steel. However, when it goes as high as .117 and .119 it is getting much too high.

(Sgd.) CANADIAN INSPECTION CO.,
L. J. STREET, *Vice-President.*

TABLE 7.

MAINTENANCE OF BRIDGES—*Work done on General Appropriation.*

| Name of Bridge. | Work. | Lumber. | Paint and Oil. | Sundries. | Labor. | Credit for Material Removed. | Net Cost. |
|---|---|---|---|---|---|---|---|
| Beach Ave. | Renewal of top flooring | $ 88 33 | $ | $ 6 72 | $ 25 00 | $ | $120 05 |
| Crawford St. | Painting | | 45 27 | 12 56 | 108 60 | | 166 43 |
| Carlaw Ave. Subway | Sidewalk covers | | 3 50 | 51 79 | 65 85 | | 121 14 |
| Dundas St. | General repairs | 692 06 | | | 389 71 | 19 80 | 1,061 97 |
| Dupont St. | Removal of culvert | | | | 2 90 | | 2 90 |
| Eastern Ave. | Repairs to flooring | | | | 10 00 | | 10 00 |
| " | Renewal of flooring | 409 89 | | 82 | 164 12 | 121 05 | 453 78 |
| " | Painting | | 104 90 | 2 20 | 225 40 | 24 00 | 308 50 |
| " | Repairs to culvert | 3 50 | | | 4 17 | | 7 67 |
| Gerrard St. | Repairs to railing | | | 7 85 | 30 07 | | 37 92 |
| " | Repairs to flooring | 553 26 | | 29 45 | 276 66 | | 859 37 |
| " | Painting | | 141 65 | 28 21 | 660 83 | 17 25 | 813 44 |
| Glen Rd. (north) | Renewal of top flooring | 789 73 | | 31 87 | 299 45 | 48 99 | 1,072 06 |
| " " | Painting railing | | 15 60 | | 128 30 | | 143 90 |
| Humber River | Renewal of flooring | 513 08 | | 26 12 | 193 08 | 61 63 | 670 65 |
| " | Painting | | 45 60 | 15 49 | 203 12 | 31 00 | 233 21 |
| Huntley St. | Painting | | 97 55 | 8 93 | 618 90 | | 725 38 |
| Lamb's Bridge | Repairs to swinging gear | 95 01 | | 35 67 | 82 02 | | 212 70 |
| " | Wages of tender | | | | 566 88 | | 566 88 |
| Lake Shore Rd. | Repairs to culverts | 110 81 | | | 41 64 | | 152 45 |
| Moore Park | Repairs to flooring | 16 00 | | 56 | 15 43 | | 31 99 |
| Queen St. E. | Replacing broken chord | 246 55 | | 6 25 | 387 40 | 210 39 | 429 81 |
| Summerhill Ave. | Renewal of top flooring | 62 22 | | 4 58 | 31 00 | | 97 80 |
| Strachan Ave. | Renewal of flooring | 719 53 | | 24 64 | 369 80 | 72 40 | 1,041 57 |
| Weston Rd. | General repairs | 163 19 | | | 113 90 | | 277 09 |
| York St. | Repairs to sidewalk | 9 61 | | | 13 54 | | 23 15 |
| Tools and Sundries | | | | 305 41 | | | 305 41 |
| | Totals | 4,472 77 | 454 07 | 599 12 | 5,027 77 | 606 51 | 9,947 22 |

## TABLE 8.

### Maintenance of Bridges.

*Work done on Special Appropriation.*

| Bridge. | Work. | Lumber. | Paint. | Steel. | Sundries. | Labor. | Total Cost. |
|---|---|---|---|---|---|---|---|
| | | $ c. | $ c. | $ c. | $ c. | $ c. | $ c. |
| Main St..... | General repairs to approaches..... | 65 07 | .... .... | ..... | 4 05 | 178 96 | 248 08 |
| Spadina Rd. .... | General reconstruction of superstructure | 1,413 02 | .... ..... | 387 00 | 128 53 | 1,374 32 | 3,302 87 |
| Winchester St . | General reconstruction of superstructure.... | 1,299 55 | 51 65 | 429 18 | 146 88 | 1,553 03 | 3,480 29 |
| | Totals..... | 2,777 64 | 51 65 | 816 18 | 279 46 | 3,106 31 | 7,031 24 |

TABLE 9.

MAINTENANCE OF ISLAND BRIDGES—DETAILS OF COST.

| Bridge. | Work. | Lumber. | Paint. | Sundries. | Labor. | Total Cost. |
|---|---|---|---|---|---|---|
| | | $ c. | $ c. | $ c. | $ c. | $ c. |
| Chippewa Ave. | General repairs | ..... | ..... | ..... | 20 72 | 20 72 |
| Hallams | Painting | ..... | 20 60 | ..... | 149 55 | 170 15 |
| Turner's Baths | General repairs | 180 18 | ..... | 24 48 | 279 25 | 483 91 |
| New foot bridge to west of Chippewa Ave. | | 78 23 | ..... | 3 25 | 154 31 | 235 79 |
| | Totals | 258 41 | 20 60 | 27 73 | 603 83 | 910 57 |

TABLE No. 10.

CITY DOCK AND WHARF REPAIRS. DETAILS OF COST.

| Work. | Dredging. | Lumber. | Sundries. | Labor. | Credit for Material Removed. | Net Cost. |
|---|---|---|---|---|---|---|
| | $ c. | $ c. | $ c. | $ c. | $ c. | $ c. |
| Yonge and Bay Street Docks, general repairs and maintenance | | 1,805 85 | 170 18 | 1,652 68 | 201 42 | 3,427 29 |
| *York Street construction of wharf for small boats | 345 00 | 102 97 | 4 48 | 161 31 | 64 40 | 549 36 |
| Totals | 345 00 | 1,904 82 | 174 66 | 1,813 99 | 265 82 | 3,976 65 |

ISLAND DOCK AND WHARF REPAIRS. DETAILS OF COST.

| Work. | Piling. | Lumber. | Sundries. | Labor. | Credit for Material Removed. | Net Cost. |
|---|---|---|---|---|---|---|
| | $ c. | $ c. | $ c. | $ c. | | $ c. |
| *Centre Island Wharf, general repairs | 137 50 | 118 26 | 19 99 | 247 33 | | 518 08 |
| Lakeside Home, construction of new ferry dock | 61 40 | 75 38 | 15 00 | 337 08 | | 488 86 |
| Ward's Island | | 25 49 | | 10 08 | | 35 57 |
| Totals | 193 90 | 219 13 | 34 99 | 594 49 | | 1,042 51 |

*Work done on special appropriations.

# Sewers, Drains and Special Works.

City Engineer's Department,
Toronto, December 31st. 1909.

Mr. C. H. Rust,
*City Engineer.*

Dear Sir,—Herewith I submit the Annual Report, showing in detail the work done under the supervision of this branch of the Department.

The following sewers were constructed during the year:—

| | | |
|---|---|---|
| 9-inch tile pipe | 466 | lin. ft. |
| 12-inch tile pipe | 31,775 | " |
| 15-inch tile pipe, in concrete | 8,835 | " |
| 18-inch tile pipe, in concrete | 7,370 | " |
| 24-inch tile pipe, in concrete | 579 | " |
| 16-inch cast iron pipe | 297 | " |
| 12-inch cast iron pipe | 302 | " |
| 3-ft. x 4-ft. 6-in., brick sewer | 1,340 | " |
| 6-ft. 6-in., circular brick | 1,022 | " |
| | 51,986 | " |

or 9.846 miles.

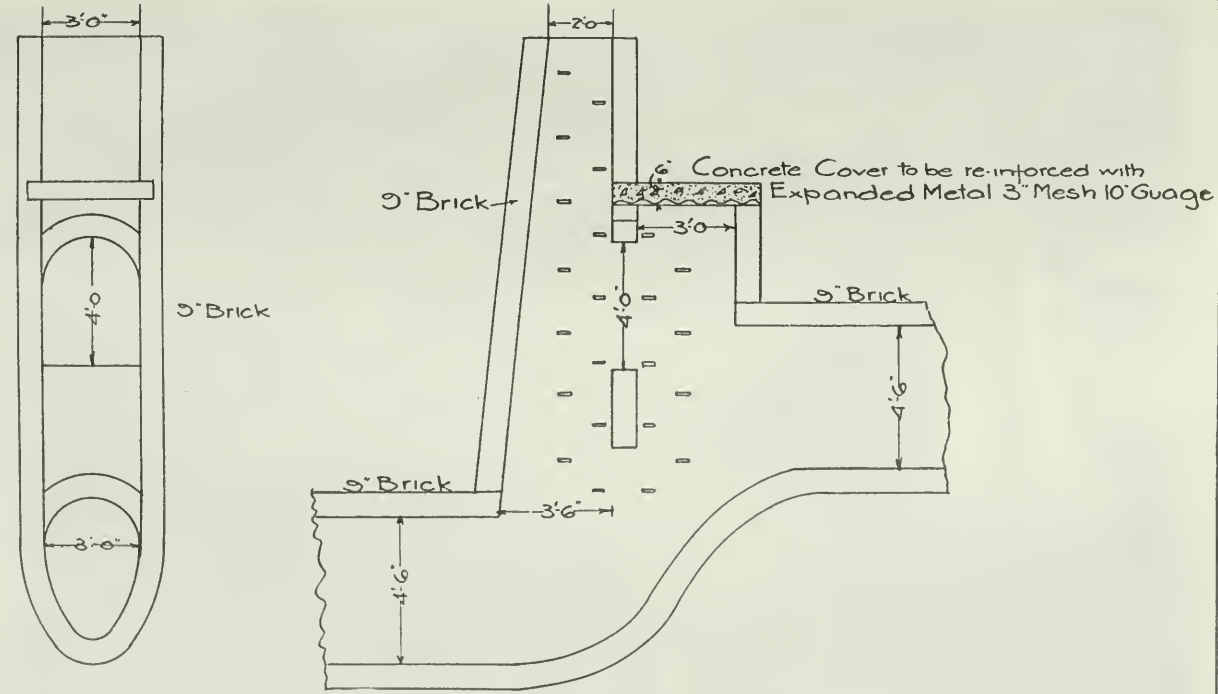
There are 298.556 miles of sewers in the City.
The above includes 13.7 miles in Ward 7.

During the year there were:—

195 new manholes built;
145 manholes repaired;
947 new gullies built;
130 gullies repaired;
148½ miles of sewers flushed and cleaned.

## DREDGING SEWAGE DEPOSITS OUT OF SLIPS.

Sewage deposits were dredged from the following slips during the year:—

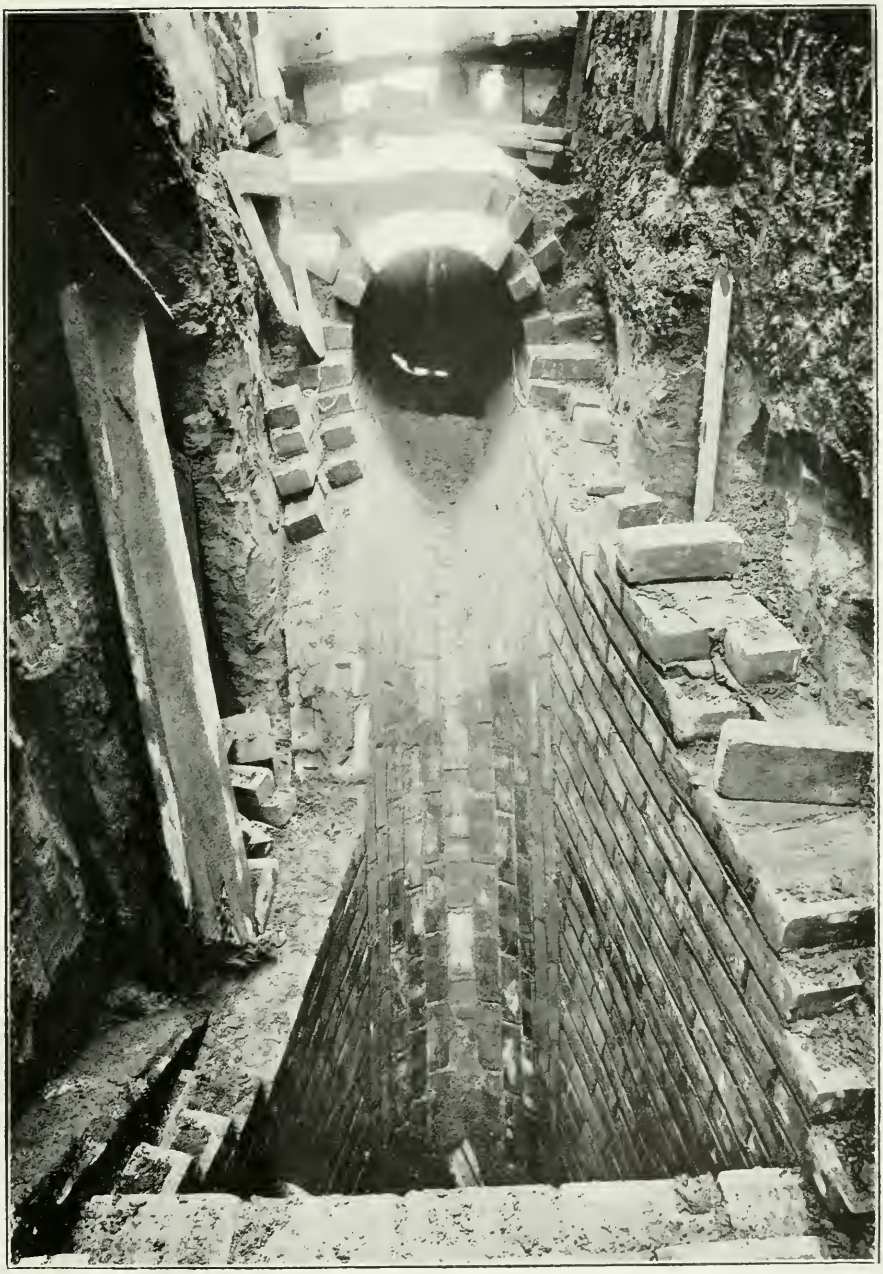



CROSS SECTION

LONGITUDINAL SECTION

# DETAIL OF DROP MANHOLE FOR YONGE ST 3'0 × 4'6" BRICK EGG-SHAPED SEWER

City Engineers Office
Toronto 5 May 1909



Drop Manhole—Yonge Street.

| | | |
|---|---|---|
| Yonge Street sewer outlet | 901 | cubic yards |
| Church Street " | 1,657½ | " |
| Jarvis Street " | 2,269½ | " |
| Sherbourne Street " | 1,615 | " |
| Berkeley Street " | 4,247½ | " |
| Parliament Street " | 2,856 | " |
| Bathurst Street " | 2,856 | " |
| Princess Street " | 6,217 | " |
| Total | 22,619½ | " |

In addition to the dredging at the above mentioned slips, the sewer outlets were dredged by the City sand pump at the foot of Laing street, Morse Street, Leslie Street and Carlaw Avenue.

## ROSEDALE CREEK SEWAGE EXTENSION.

During the year what is known as the Rosedale Creek Sewer was extended from Bedford Road along the line of the creek to a point in the High Level Pumping Station grounds 200 feet north of Macpherson Avenue, a special appropriation having been received to defray the cost of this work.

This extension provides an outlet for a trunk sewer for the recently annexed district of Bracondale, from this point as far west as Bathurst Street, and the same is now being constructed.

## RELIEF SEWER ON DOVERCOURT ROAD, SOUTH OF COLLEGE.

For some time back we have had complaints of water backing up from the College Street sewer in the vicinity of Dovercourt Road. In order to relieve this we asked for a special appropriation, which we obtained, and then cut off the Dovercourt Road sewer from the College Street sewer, running the same south on Dovercourt to connect with the Garrison Creek sewer south of Shannon Street. There have been no complaints of flooding in this locality since this was constructed.

## DRAINAGE IN DEER PARK DISTRICT.

During the year a system of sewers was recommended for the recently annexed district of Deer Park, this necessitating a trunk sewer on Yonge Street, from old City limits to the south boundary of Mount Pleasant Cemetery property, the construction of which was begun in June. This has been a very heavy piece of sewer work, being in most places about 27 feet deep, and the ground being very wet. This is now constructed to a point near Clarence Avenue, and sewers laid on side streets throughout

the district south of Clarence Avenue. We expect, about the first of May of next year, to have sewers laid on all the streets in this district.

### DRAINAGE FOR DISTRICT WEST OF SUNNYSIDE.

A system of sewers has been recommended for the district lying between Sunnyside Avenue and High Park and between the Lake Shore Road and Bloor Street, and we expect to start the construction work on these in a very short time.

### FLUSHING SEWERS.

In the matter of flushing of sewers, we found it necessary to double the number of men engaged in this work, and purchased 800 feet of additional hose to carry out the same. All the smaller sewers have been flushed once during the year, and most of them twice, others oftener. All the larger sewers have been examined and repairs made where considered necessary.

### WOODBINE SEWERAGE SYSTEM.

The Sewage Disposal System at the foot of Woodbine Avenue continues to give satisfactory results, this being borne out by the analysis made from time to time by Dr. Amyot, the Provincial Analyst. It was found necessary to clean out the septic tanks once during the year. The distributors, which were formerly ordinary land tile, were found to have become partially disintegrated, causing the same to clog, and these were replaced by perforated salt-glazed tile pipe. After these new distributors were put in a higher degree of purification was obtained.

The following table shows the number of lineal feet of private drains constructed during the year:—

| | 6-in. | 9-in. | 12-in. |
|---|---|---|---|
| January | 2,122 | 264 | |
| February | 2,723 | 289 | |
| March | 7,600 | 844 | |
| April | 9,149 | 908 | 33 |
| May | 8,586 | 637 | |
| June | 7,612 | 692 | 33 |
| July | 7,318 | 641 | |
| August | 8,290 | 663 | |
| September | 7,734 | 924 | 33 |
| October | 9,516 | 1,092 | 66 |
| November | 7,693 | 919 | |
| December | 3,998 | 355 | |
| | 82,341 | 8,228 | 165 |

Total, 90,734 ft.: 17.18 miles

Davenport Road—Sewer Section.

Davenport Road—Sewer Belmouth.

TABLE No. 1.

SHOWING SEWERS CONSTRUCTED DURING THE YEAR.

| Street. | From. | To. | Size. | Description. | Length. | No. Manholes. | No. Gullies. | No. P. D. Connects. | Average Depth. | Soil. | Inspector. | Contractor. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | ft. in. | | | | | | | | | |
| Radford St | Alhambra Ave | A pt. 531 ft. west | 12 in. | Tile | 587 | 2 | 0 | 28 | 10.27 | sand | W. W. Moss | E. Axworthy. |
| Newsham St | Brock Ave | East end | 12 " | " | 322 | 2 | 0 | 15 | 11.97 | sand | R. Patterson | Exc'ior C. & P. Co. |
| Fairview Ave | Broadview Ave | Bowden St | 12 " | " | 1115 | 4 | 4 | 79 | 11.83 | sand & clay | C. W. North | Reeve C. & P. Co. |
| Smith St | A pt. 110 ft. east of Pape Ave. | A pt. 85 ft. e. of Boucher St | 12 " | " | 245 | 3 | 0 | 11 | 7.06 | red sand | F. J. Carrette | Page & Britnell. |
| Westminster Ave | Sunnyside Ave | Indian Rd | 12 " | " | 350 | 2 | 0 | 20 | 10.81 | clay | R. Patterson | Exc'ior C & P. C's. |
| Tennis Crescent | Broadview Ave | East end | 12 " | " | 306 | 3 | 0 | 10 | 11.37 | red clay | F. J. Carrette | Page & Britnell. |
| Constance St | Indian Rd | Sunnyside Ave | 12 " | " | 474 | 2 | 0 | 34 | 12.09 | sand | R. Patterson | Exc'ior C. & P. Co. |
| College St | Indian Rd | Sunnyside Ave | 12 " | " | 525 | 2 | 0 | 36 | 16 77 | sand & clay | R. Patterson | Exc'ior C. & P. Co. |
| Neepawa Ave | Roncesvalles Ave | Lynd Ave | 12 " | " | 299 | 2 | 0 | 20 | 11.30 | s'd w tat bm | C. W. North | Reeve C. & P. Co. |
| Gore Vale Ave | Queen St | Arthur St | 15 " | " | 1890 | 7 | 4 | 106 | 11.10 | r'd & bl. cl. | F. J. Carette | Page & Britnell. |
| Wright Ave | Sunnyside Ave | Glendale Ave | 12 " | " | 284 | 2 | 0 | 18 | 9.39 | hard clay | C. W. North | Reeve C. & P. Co. |
| Marlborough Ave. / Sidney Ave. | Avenue Rd | Cottingham St. | 12 " | " | 620 | 3 | 0 | 27 | 10.90 | hard pan | R. Patterson | Exc'ior C. & P.Co. |
| Rosedale Creek | Bedford Rd | A pt. 1022 ft. north | 6 ft. 6 in. | Brick | 1022 | 1 | 0 | 0 | 6.00 | bl.cl. & s'd. | B. J. Loenan, F. J. Carrette & G. R. Carrette | City. |
| Gerrard St | Carlaw Ave | Pape Ave | 12 in. | Tile | 640 | 3 | 2 | 21 | 10.83 | sand (dry) | T. Madigan | Reeve C. & P. Co. |
| Galley Ave | Macdonell Ave | Sorauren Ave | 12 " | " | 805 | 5 | 2 | 37 | 8.42 | sand & cl'y | R. Patterson | City. |
| St. Clarens Ave | Lappin Ave | Royce Ave | 15 " | " | 680 | 2 | 4 | 38 | 12.48 | hard pan | F. J. Carrette | Page & Britnell. |
| E. Roxborough St | Edgar Ave | Buscarth Rd | 12 " | " | 1963 | 7 | 0 | 25 | 10.70 | sand (wet) | R. Patterson and C. North | E. Axworthy. |
| Pricefield Rd | N. limit of Scarth Rd | W. limit of Lt. No. 41 | 12 " | " | 590 | 1 | 0 | 38 | 9.95 | clay | T. Madigan | J. Maguire. |
| Cluny Ave | Rowanwood Ave | Pricefield Rd | 12 " | " | 395 | 1 | 0 | 20 | 10.89 | hard clay | T. Madigan | Orpen Co., Ltd. |
| Grace St | A pt. 1870 ft. n. of College St. | A pt. 400 ft. s. of Bloor St | 12 " | " | 1136 | 1 | 0 | 45 | 9.42 | ash.s.&h cl | C. W. North | E. Axworthy. |
| Westminster Ave | Sunnyside Ave | Roncesvalles Ave | 12 " | " | 592 | 3 | 0 | 48 | 10.56 | w.t.s'd.bl.cl. | R. E. Hayward | Orpen Co., Ltd. |
| Galt Ave | Dagmar Ave | A pt. 443 ft. s. of Gerrard St | 12 " | " | 477 | 1 | 0 | 18 | 10.16 | sandy l'm. | W. C. Jones | Orpen Co., Ltd. |
| Shaw St. (reconstruction.) | A pt. 400 ft. n. of College St. | Bloor St | 18 " | " | 2418 | 0 | 0 | 93 | 11.51 | clay | F. J. Carrette | Godson Con. Co. |
| St. Enoch's Square | A pt. 131 ft. s. of Shuter St. | A pt. 80 ft. further s | 9 " | " | 80 | 1 | 0 | 7 | 5.53 | clay | R. Patterson | City. |
| Heath St. | A pt. 188 ft. e. of Oriole Rd. | A pt. 440 ft. further e | 12 " | " | 440 | 1 | 0 | 13 | 11.12 | sandy l'm. | W. W. Moss | Exc'ior C. & P. Co. |
| Campbell Ave | Antler Ave | Royce Ave | 15 " | " | 670 | 2 | 4 | 45 | 12.36 | s'd. & g'v'l. | R. E. Hayward | Orpen Co., Ltd. |
| Lansdowne Ave | Queen St | Subway | 18 in x 12 in | " | 3000 | 9 | 0 | 0 | 12.94 | hard clay | R. Patterson | City. |
| Marshall St | Brock Ave | East end | 12 in. | " | 320 | 1 | 0 | 15 | 10.22 | sand | R. E. Hayward | E. Axworthy. |
| St. Clair Ave | A pt. 188 ft. e. of Oriole Rd. | E s. of Marlborough Crescent | 12 " | " | 200 | 1 | 0 | 16 | 8.91 | sand | R. Patterson | City. |
| Clinton Ave | Oriole Rd. | A pt. 588 ft. e. | 12 " | " | 655 | 3 | 0 | 30 | 11.65 | sandy l'm. | W. W. Moss | Exc'ior C. & P. Co. |
| Woodlawn Ave | Yonge St | A pt. 990 ft. 6 in. e. | 12 " | " | 1155 | 4 | 0 | 66 | 12.81 | sand & clay | T. Madigan | J. F. Connolly. |
| Yonge St | Old City limits | St. Clair Ave | 3 ft. x 4 ft. 6 in. | Brick | 1340 | 4 | 8 | 84 | 19.57 | cl. & w't's'd | C. W. North | Orpen Co., Ltd. |
| Farnham Ave | Yonge St | A pt. 1330 ft. w. | 15 in x 12 in | Tile | 1366 | 3 | 4 | 70 | 11.60 | sand & clay | R. E. Hayward | E. Axworthy. |
| Olive Ave | Yonge St | A pt. 1330 ft. w. | 15 in x 12 in | " | 1390 | 4 | 2 | 91 | 11.52 | sandy loam. | R. Kerr | Exc'ior C. & P. Co. |
| Lane 1st south of Queen St. | McDougall's Lane | Spadina Ave | 12 in. | " | 410 | 1 | 0 | 29 | 10.58 | clay | R. Patterson | City. |
| Jackes Ave | Yonge St | East end | 12 " | " | 690 | 2 | 0 | 36 | 15.72 | sandy loam | C. W. North and W. C. Jones | Orpen Co., Ltd. |
| Exhibition Park | Through sea wall | | 16 " | Iron | 225 | 0 | 0 | 0 | 5.89 | gar. & ash. | R. Patterson | City. |
| Exhibition Park | Through sea wall | | 12 " | " | 230 | 0 | 0 | 0 | 3 53 | gar & ash. | R. Patterson | City. |
| Exhibition Park | Through sea wall | | 18 " | Tile | 235 | 0 | 0 | 0 | | on crib | R. Patterson | City. |
| Exhibition Park | Intercepting drain 9 in. to 18 in. | connecting 6 in. and | 15 " | " | 268 | 2 | 0 | 0 | 10.41 | m'degr&rk | R. Patterson | City. |
| Globe Ave | Pape Ave | East end | 12 " | " | 660 | 3 | 0 | 45 | 12.02 | sand & clay | F. W. Carrette | J. H. McKnight Con. Co. |
| Hunter St | A pt. 300 ft. e. of Jones Ave. | East end | 12 " | " | 310 | 1 | 0 | 20 | 10.41 | sand & clay | F. W. Carrette | J. H. McKnight Con. Co. |
| Ward St | Wallace Ave | Lappin Ave | 12 " | " | 970 | 4 | 4 | 59 | 11.16 | w't's'd.& cl. | W. W. Moss | J. H. McKnight Con. Co. |
| Franklin Ave | Ruskin Ave | Antler Ave | 12 " | " | 321 | 2 | 0 | 7 | 10.00 | sand | R. E. Hayward | E. Axworthy. |
| Pleasant Ave | Yonge St | East end | 12 " | " | 678 | 3 | 2 | 40 | 13.66 | w't.s'd.& cl. | T. Madigan | Orpen Co., Ltd. |
| St. Clair Ave | Yonge St | E.s. of Marlborough Crescent | 15 in x 12 in | " | 1062 | 4 | 4 | 53 | 10.71 | sand | R. Patterson | Exc'ior C. & P. Co. |
| Dovercourt Rd | College St | Garrison Creek | 24 in. | " | 579 | 0 | 2 | 0 | 13.75 | sand | L. C. Stevenson | J. H. McKnight Con. Co. |
| Marlborough Cres. | St. Clair Ave | Heath St | 12 " | " | 790 | 4 | 4 | 54 | 10.77 | s'd & grv | H. T. Langley | J. Maguire. |
| Heath St | Yonge St | A pt. 628 ft. e. of Oriole Rd. | 15 " | " | 936 | 2 | 4 | 53 | 11 64 | sand | T. Madigan | J. F. Connolly. |
| Alvin Ave | St. Clair Ave | North end | 12 " | " | 550 | 2 | 0 | 32 | 11.27 | sand & clay | R. E. Hayward | E. Axworthy. |
| Sparkhall Ave | A pt. 380 ft. e of Broadview Ave. | E. limit of Lot 18, Plan 685 | 12 " | " | 655 | 2 | 1 | 46 | 10.05 | sandy loam | W. C. Jones | Reeve C. & P. Co. |
| St. Clair Ave | Warren Rd | Russell Hill Rd | 18 " | " | 1247 | 4 | 2 | 52 | 11.27 | sand & clay | T. Madigan | J. F. Connolly. |
| Russell Hill Rd | St. Clair Ave | N.s of Heath St | 15 " | " | | | | | | | | |
| Bridgman Ave | Spadina Rd | Madison Ave | 12 " | " | 898 | 6 | 0 | 44 | 10.00 | sand & clay | H. T. Langley | J. Maguire. |
| Madison Ave | Bridgman Ave | Davenport Rd | | | | | | | | | | |
| Dunvegan Rd | Lonsdale Ave | A pt. 130 ft. n. | 18 " | " | 246 | 2 | 0 | 5 | 12.41 | clay | R. Patterson | City. |
| High Park Gardens | Indian Rd | A pt. 450 ft. w. | 12 " | " | 494 | 3 | 0 | 20 | 8 43 | sand | W. W. Moss | Exc'ior C & P. Co. |
| Lane 1st s. of Ridout St. | Indian Grove | A pt. 200 ft. w. | 12 " | " | 416 | 3 | 0 | 18 | 6.22 | sand | R. Patterson | City. |
| Lane 1st w. of Indian Grove. | A pt. 30 ft. s. of Ridout St. | 1st Lane s. | | | | | | | | | | |
| Howland Ave | C.P.Ry. | Davenport Rd | 12 " | " | 1015 | 4 | 2 | 44 | 10.95 | sand & clay | R. E. Hayward | E. Axworthy. |
| Bain Ave | Pape Ave | Keswick Ave | 12 " | " | 660 | 3 | 0 | 8 | 11.07 | s'd&m'degr | R. Patterson | City. |
| St. Clair Ave | Russell Hill Rd | Spadina Rd | 12 " | " | 1110 | 3 | 4 | 53 | 14.34 | clay | T. Madigan | J. F. Connolly. |
| Parkwood Ave | St. Clair Ave | North City limits | | | | | | | | | | |
| Emerson Ave | Lappin Ave | C.P.Ry. | 18 " | " | 1308 | 3 | 4 | 55 | 11.25 | clay | W. W. Moss | J. H. McKnight Con. Co. |
| Rosehill Ave | Yonge St | East end | 12 in x 15 in | " | 1403 | 5 | 4 | 76 | 12.64 | clay | H. T. Langley | J. Maguire. |
| Heath St | Avenue Rd | A pt. 200 ft. e. | 12 in. | " | 238 | 1 | 2 | 6 | 8.35 | clay | R. Patterson | City. |
| Bridgman Ave | Howland Ave | Dartnell Ave | 12 " | " | 840 | 3 | 4 | 40 | 10.68 | w't.s'd.&cl. | R. E. Hayward | E. Axworthy. |
| Dartnell Ave | Bridgman Ave | Davenport Rd | | | | | | | | | | |
| Wahner Rd | Bridgman Ave | Davenport Rd | 12 " | " | 530 | 2 | 2 | 36 | 11.09 | hard pan | R. Patterson | Exc'ior C. & P. Co. |
| Keele St | A pt. 520 ft. s. of Annette St. W. | Humberside Ave | 9 " | " | 352 | 1 | 0 | 12 | 9.06 | sand | R. Patterson | Exc'ior C. & P. Co. |
| Humberside Ave | Western Ave | Mavety St | 15 in x 12 in | " | 935 | 3 | 3 | 32 | 6.20 | sand | W. W. Moss | J. H. McKnight Con. Co. |
| Lonsdale Ave | Avenue Rd | Oriole Rd | 12 in. | " | 422 | 2 | 2 | 10 | 9.25 | sand & clay | W. C. Jones | J. F. Connolly. |
| Huron St | C.P.Ry. | Davenport Rd | 12 " | " | 793 | 3 | 2 | 31 | 11.32 | clay | W. W. Moss | J. H. McKnight Con. Co. |
| DeLisle Ave | Yonge St | Marlborough Cres. | 12 " | " | 1120 | 3 | 2 | 42 | 11.58 | sand | R. E. Hayward | E. Axworthy. |
| Palmerston Gardens | Manning Ave | Palmerston Ave | 12 " | " | 620 | 3 | 0 | 42 | 11.95 | brick clay | R. Patterson | City. |
| Bridgman Ave | Spadina Rd | Kendal Ave | 15 " | " | | In | Progress. | | | | W. C. Jones | J. F. Connolly. |
| Kendal Ave | Bridgman Ave | Davenport Rd | 12 " | " | | In | Progress. | | | | L. C. Stevenson | Exc'ior C. & P. Co. |
| St. Clair Ave | Yonge St | A pt. 1110 ft. e. | 15 in x 12 in | " | | In | Progress. | | | | W. W. Moss | J. H. McKnight Con. Co. |
| Clarence Ave | Yonge St | A pt. 870 ft. e. | 12 in. | " | | In | Progress. | | | | H. T. Langley | J. Maguire. |
| Bathurst St | C.P.Ry. | Davenport Rd | 15 " | " | | In | Progress. | | | | C. W. North | Orpen Co., Ltd. |
| Yonge St | St. Clair Ave | Present City limits | 2 ft. x 3 ft. 3 ft. 8 in. x 5 ft. 6 in. | Brick | | In | Progress. | | | | F. J. Carrette | Godson Con. Co. |
| Davenport Rd | C.P.Ry. | Bathurst St | 3 ft. x 4 ft. 6 in. | " | | In | Progress. | | | | R. Patterson | City. |
| Yarmouth Gardens | Manning Ave | Palmerston Ave | 12 in. | Tile | | In | Progress. | | | | | |

TABLE No. 2.

SHOWING SEWERS CONSTRUCTED BY DAY LABOR DURING THE YEAR.

| Street. | From. | To. | Size. | Description. | Length. | City's Tender. | Next Lowest Tender. | Total cost of work exclusive of interest. | Difference between actual cost and lowest Contractor's Tender. | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | Loss. | Gain. |
| | | | | | | $ c. | $ c. | $ c. | | $ c. |
| Galley Ave.... | Macdonell Ave.. | Sorauren Ave.... | 12 in. | Tile .. | 805 | No. Tender | ..... | ..... | ..... | ..... |
| Rosedale Creek .... | Bedford Road.... | A point 1,022 ft. n. | 6' 6" | Brick. | 1,022 | " | ..... | ..... | ..... | ..... |
| Lansdowne Ave.... | Queen St..... | Subway ..... | 18 in. | Tile .. | 3,000 | " | ..... | ..... | ..... | ..... |
| St. Enoch's Square. | A point 131 ft. s. of Shuter St... | A point 80 feet further s..... | 9 " | " .. | 80 | " | ..... | ..... | ..... | ..... |
| Exhibition Park.. . | Through sea wall. | ..... | 16 " | Iron.. | 225 | " | ..... | ..... | ..... | ..... |
| Exhibition Park.... | Through sea wall. | ..... | 12 " | " .. | 230 | " | ..... | ..... | ..... | ..... |
| Exhibition Park.... | Through sea wall. | ..... | 18 " | Tile . | 235 | " | ..... | ..... | ..... | ..... |
| Exhibition Park.... | Int'cepting drain | connecting 6 in. & 9 in. to 18 in... | 15 " | " .. | 268 | " | ..... | ..... | ..... | ..... |
| Dunvegan Road.... | Lonsdale Ave.... | A point 130 ft. n. | 18 " | " .. | 246 | " | ..... | ..... | ..... | ..... |
| Lane 1st s. of Ridout St..... | Indian Grove... | A point 200 ft. w. | 12 " | " .. | 416 | " | ..... | ..... | ..... | ..... |
| Lane 1st w. of Indian Grove..... | A point 30 ft. s. of Ridout St..... | 1st Lane s..... | | | | | | | | |
| Bain Ave. ..... | Pape Ave..... | Kiswick Ave..... | 12 " | " .. | 660 | " | ..... | ..... | ..... | ..... |
| Heath St..... | Avenue Road.... | A point 200 ft. e. | 12 " | " .. | 238 | " | ..... | ..... | ..... | ..... |
| Lane 1st s. of Queen St..... | McDougall's Lane | Spadina Ave..... | 12 " | " . | 410 | 580 00 | 680 00 | 535 04 | ..... | 144 96 |
| St. Clair Ave..... | A point 188 ft. e. of Oriole Road. | East side of Marlborough Cres.. | 12 " | " .. | 200 | 190 00 | 219 00 | 182 80 | ..... | 36 20 |
| Palmerston Gardens | Manning Ave.... | Palmerston Ave.. | 12 " | " .. | 620 | No. Tender | ..... | ..... | ..... | ..... |
| Yarmouth Gardens. | Manning Ave.... | Palmerston Ave.. | 12 " | " .. | In Pr'gr's | " | ..... | ..... | ..... | ..... |

In addition to the above there were:

66 private drains repaired.
34 private drains flushed.
16 private drains lowered.

## SEWERS CONSTRUCTED DURING THE YEAR.

Table No. 1 shows in detail the number of sewers constructed during the year, from which it will be seen that 84 sewers were laid, of which the total length was 9.846 miles.

Table No. 2 shows in detail the number of sewers constructed by day labor during the year.

## RAILWAY CROSSINGS.

As reported at the close of 1908, there were eighty-two railway crossings in the City. Owing to new territory being added to the City by the taking in of West Toronto, thirteen crossings were added, making now ninety-five crossings. Gates were ordered by the Railway Board and have been erected at Weston Road, and with the one on St. Clair Avenue taken in with West Toronto, these make 26 crossing protected by gates.

### SUMMARY.

| | |
|---|---|
| Crossings protected by watchmen only | 10 |
| " " gates and watchmen | 26 |
| " " bells only | 3 |
| " " bridges | 9 |
| " " subways | 4 |
| Crossings unprotected | 43 |
| Total number of crossings | 95 |

Increase over 1908—13.

The Toronto Railway Company have renewed the following tracks during the year:

| | ft. | in. |
|---|---|---|
| Yonge Street, College to Bloor, both tracks with 90 lbs. girder rail | 6,525 | |
| Queen Street, Don to Broadview, both tracks with 90 lbs. girder rail | 2,196 | |
| Gerrard Street, Carlaw to Pape, both tracks, 70 lbs. T rails | 1,515 | |
| Gerrard Street, Carlaw to Pape, both tracks, 108 lbs. T. rail | 327 | 4 |
| Arthur Street, Bathurst to Ossington, both tracks, 70 lbs. T rail | 7,843 | |
| Avenue Road, Bloor to Davenport Road, both tracks, 70 lbs. T rail | 4,698 | |
| College Street, Yonge to McCaul, both tracks, 80 lbs. 7-in. T. rail | 5,582 | |
| Shaw Street, King to Queen, both tracks, 70 lbs. T rail | 2,338 | |
| Roncesvalles Avenue, Queen St. north, 90 lbs. girder rail | 230 | |

| | ft. | in. |
|---|---|---|
| Queen Street, across Roncesvalles Avenue, 90 lbs. girder rail..... | 592 | |
| King Street, across Queen and Roncesvalles ..... | 538 | |
| Curves into sheds at Roncesvalles Avenue, adding 2 new curves.... | 470 | 4 |
| Cross-over on Roncesvalles Avenue at Harvard Avenue..... | 47 | 9 |

IRON TROLLEY POLES ERECTED DURING 1909 BY THE TORONTO RAILWAY CO., REPLACING 208 WOODEN POLES.

| | Poles. |
|---|---|
| Carlton and Church ..... | 1 |
| Bathurst and Queen ..... | 1 |
| Queen, Roncesvalles West ..... | 21 |
| College Street at Grace ..... | 2 |
| Avenue Road at St. Clair ..... | 4 |
| Scollard Street ..... | 1 |
| Howard Park Avenue ..... | 8 |
| Gerrard Street, Carlaw to Pape ..... | 12 |
| Dundas Street and Roncesvalles..... | 14 |
| Queen Street at Roncesvalles ..... | 1 |
| Queen Street, G. T. R. to Greenwood ..... | 100 |
| Sorauren Avenue, Queen north ..... | 7 |
| College Street at Sheridan ..... | 1 |
| Arthur and Dundas ..... | 2 |
| King Street at Barns ..... | 1 |
| College Street, Grace Street West ..... | 7 |
| 2177 Queen Street East ..... | 1 |
| Front Street West, opposite Queen's Hotel ..... | 2 |
| Front Street at Simcoe ..... | 1 |
| Spadina and College ..... | 1 |
| Richmond Street, Victoria to Church ..... | 13 |
| Roncesvalles, at the Barns ..... | 20 |
| | 221 |

TROLLEY POLES PAINTED BY THE TORONTO RAILWAY COMPANY DURING 1909.

| | Poles. |
|---|---|
| York Street ..... | 18 |
| Richmond Street ..... | 38 |
| Yonge Street ..... | 125 |
| Gerrard Street ..... | 137 |
| Yorkville Avenue ..... | 12 |
| King Street ..... | 275 |
| Sherbourne Street ..... | 102 |
| Queen Street ..... | 375 |

| | Poles. |
|---|---|
| Arthur Street | 68 |
| Bathurst Street | 22 |
| Front Street | 44 |
| Dundas Street | 87 |
| Roncesvalles Avenue | 47 |
| Bloor Street | 106 |
| Lansdowne Avenue | 62 |
| McCaul Street | 58 |
| Church Street | 58 |
| College Street | 20 |
| Spadina Avenue | 91 |
| Avenue Road | 4 |
| Carlton Street | 1 |
| Broadview Avenue | 57 |
| | 1,807 |

TELEPHONE POLES ERECTED BY THE BELL TELEPHONE CO. DURING 1909.

| Street. | Poles. | Anchor. | Stub. |
|---|---|---|---|
| Avenue Road | — | — | 1 |
| Geoffrey Street | 4 | 1 | 1 |
| Dufferin Street | 2 | — | — |
| Delaware Avenue | 5 | — | — |
| Grace Street | 3 | 1 | 1 |
| Manning Avenue | 11 | — | — |
| Fuller Street | 5 | 1 | 1 |
| Charles Street | 1 | — | — |
| Russill Hill Drive | 5 | 1 | 1 |
| Russett Avenue | 3 | — | — |
| Lane east of Roncesvalles between Harvard and Grafton | 2 | — | — |
| Palmerston Avenue | 2 | — | — |
| London Street | 1 | — | — |
| Herrick Street | 2 | — | — |
| Barrett Avenue | 5 | 1 | 1 |
| Wyndham Street | 5 | — | — |
| Cor. Winifred and Eastern Avenue | 1 | — | — |
| Sackville Street | 4 | — | — |
| Olive Avenue | 5 | — | — |
| Lane north of Camden Street west of Spadina Avenue | 1 | — | — |
| Summerhill Avenue | — | 3 | — |
| Alcorn Avenue | — | — | 1 |

| Street. | Poles. | Anchor. | Stub. |
|---|---|---|---|
| N.W. corner Cottingham and Yonge | — | 1 | — |
| Galley Avenue | 1 | — | — |
| Victor Avenue | — | — | 1 |
| Indian Road | 4 | — | — |
| West Marion Street | 10 | 1 | 1 |
| Manning Avenue | 3 | — | — |
| Muir Avenue | 4 | — | — |
| Sheridan Avenue | 5 | — | — |
| Wright Avenue | 7 | 2 | — |
| Lane n. of College, bet. Brunswick and Borden | 3 | — | — |
| Benlamon Avenue | 3 | — | — |
| Island—St. Andrew's Avenue | 4 | — | — |
| Barrett Avenue | 3 | — | — |
| Bain Avenue | 4 | 1 | 1 |
| Hampton Avenue | 3 | — | — |
| Logan Avenue | 6 | — | — |
| Grandview Avenue | 3 | — | — |
| Radford Avenue | 6 | — | — |
| Margueretta Street | 13 | — | — |
| Galley Avenue | 7 | — | — |
| Danforth Avenue | 2 | — | — |
| Pearson Avenue | 5 | — | 1 |
| Crocker Avenue | 4 | — | — |
| Marmaduke Street | 8 | — | 2 |
| Givens Street | 11 | — | 1 |
| Parkway Avenue | 3 | — | — |
| Gerrard Street | 3 | — | — |
| Galley Avenue | 5 | — | — |
| Sunnyside Avenue | 32 | — | — |
| Hannaford Avenue | 2 | — | — |
| College Street | 4 | — | 1 |
| Wallace Avenue | 11 | — | 1 |
| Lucas Street | 6 | — | 2 |
| Hambly Avenue | 2 | — | 1 |
| Wolfrey Avenue | 1 | — | — |
| Givens Street | 2 | — | 1 |
| Westminster Avenue | 2 | 1 | 1 |
| Lansdowne Avenue | 4 | 1 | 1 |
| Lennox Street | 2 | — | — |
| Dovercourt Road | 12 | — | 1 |
| Logan Avenue | 4 | — | — |
| Lane n. of Oxford, bet. Spadina and Huron | 1 | — | — |

| Street. | Poles. | Anchor. | Stub. |
|---|---|---|---|
| Bowden Street | 9 | 1 | 1 |
| Walter Street | 8 | 2 | 2 |
| Constance Street | 4 | 1 | 1 |
| Fern Avenue | 4 | 1 | 1 |
| Howard St., lane e. of Sherbourne. | 4 | 1 | — |
| Vermont Avenue | 4 | — | 1 |
| Riverdale Avenue | 14 | — | 1 |
| Lane w. of Huntley, n. of Isabella | 2 | — | — |
| Concord Avenue | 4 | — | — |
| Western Avenue | 2 | — | |
| Hewitt Avenue | 2 | — | — |
| Dupont Street | 5 | — | — |
| Sunnyside Avenue | 1 | — | — |
| Constance Street | 3 | — | — |
| Lyall Avenue | 8 | — | — |
| Howard Park Avenue | 5 | — | — |
| | — | — | — |
| | 361 | 21 | 28 |

POLES MOVED BY THE BELL TELEPHONE COMPANY ON ACCOUNT OF NEW PAVEMENTS AND WALKS DURING 1909.

| | Poles. | Anchor. | Stubs. |
|---|---|---|---|
| Corner Queen and Broadview | — | — | 1 |
| Lindsay Avenue | 6 | 1 | 1 |
| Wallace Avenue | — | — | 1 |
| Corner College and Spadina | 1 | — | — |
| Elizabeth Street | 3 | — | — |
| Sumach Street | 3 | — | — |
| Pape Avenue | — | 1 | — |
| Broadview Avenue | 9 | 2 | — |
| Ryerson Avenue | 9 | | — |
| Corner Palmerston and College | — | — | 1 |
| Roncesvalles Avenue | — | — | 1 |
| Avenue Road | 6 | — | — |
| Royce Avenue | 12 | — | 1 |
| Queen Street West | 5 | — | 1 |
| Elizabeth Street | 5 | — | — |
| Island | 1 | — | — |
| St. Patrick | 1 | — | — |
| Castle Frank Avenue | 2 | — | 1 |
| Howard Park Avenue | 4 | — | — |
| Dalhousie Street | 4 | — | — |
| Duchess Street | 5 | — | — |
| Symington Avenue | 10 | — | 2 |

| Street. | Poles. | Anchor. | Stub. |
|---|---|---|---|
| Beaumont Road | 5 | — | — |
| Corner College and Dovercourt Rd. | 1 | — | — |
| Scarth Rd. and Crescent Pk. | 1 | — | — |
| Afton Avenue | 4 | — | 1 |
| Lansdowne Avenue | 5 | — | — |
| Irwin Avenue | — | — | 1 |
| St. Helens Avenue | 8 | — | — |
| Rusholme Road | 6 | — | — |
| Arthur Street | 51 | — | 2 |
| Grange Avenue | 4 | — | 2 |
| Pelham Place | 2 | — | 2 |
| College Street | 2 | — | — |
| Gladstone Avenue | 1 | — | — |
| Queen and Roncesvalles | 1 | — | — |
| St. Clair Avenue | — | — | 2 |
| Dunvegan Road | — | — | 1 |
| Highland Avenue | 4 | — | 1 |
| Euclid Avenue | 13 | — | — |
| Riverdale Park | — | 1 | — |
| Woodlee & Gerrard | 1 | — | — |
| Van Horne Street | 1 | — | — |
| Brock Avenue | 4 | — | — |
| Broadview and Danforth | 1 | — | — |
| Roxboro Street East | 11 | 1 & U. G. Ducts. | |
| Lonsdale Avenue | 6 | — | — |
| Westmoreland Avenue | 3 | — | — |
| Shaw Street | 4 | — | — |
| Thorold Street | 3 | — | — |
| Carlyle Street | 5 | — | — |
| Shaw and Harbord | 1 | — | — |
| Queen and Broadview | — | — | 1 |
| Euclid Avenue | 14 & U. G. Ducts. | | |
| College and Concord | 1 | — | — |
| Arthur Street | — | — | 2 |
| Alhambra Avenue | 5 | 1 | 1 |
| Duke Street | 4 | — | — |
| Starr Avenue | 2 | — | — |
| McDougall's Lane | 2 | — | 1 |
| River and Wyatt | — | — | 1 |
| Severn and Yonge | — | — | 1 |
| Royce and Lansdowne | — | — | 2 |
| Dunvegan Road | 13 | — | 2 |
| McCaul Street | 1 | — | 2 |
| | 276 | 7 | 34 |

POLES PAINTED BY THE BELL TELEPHONE COMPANY, 1909.

| Street. | No. of Poles. |
|---|---|
| Woodlawn Ave. | 12 |
| Walker Ave. | 12 |
| Summerhill Ave. | 17 |
| Oaklands Ave. | 4 |
| Cottingham St. | 41 |
| McMaster Ave. | 6 |
| Farnham Ave. | 16 |
| Sackville St. | 8 |
| Gerrard St. E. | 14 |
| Charles St. W. | 1 |
| Rosehill to Moore Park | 28 |
| Heath St. | 15 |
| Clarence Ave. | 10 |
| Hewitt St. | 8 |
| Oriole Road | 16 |
| Yonge St. to Belt Line Bridge | 62 |
| Conduit St. | 18 |
| Dundas St. | 95 |
| Ablet Ave. | 6 |
| Dunn Ave. | 22 |
| Dufferin St. | 14 |
| Bloor St. W. | 8 |
| Givens St. | 16 |
| Forest Hill Rd. | 21 |
| Lonsdale Rd. | 6 |
| St. Clair Ave. | 50 |
| Galley Ave. | 15 |
| Manning Ave. | 5 |
| Sunnyside Ave. | 33 |
| McPherson Ave. | 12 |
| College St. | 92 |
| Dunvegan Rd. | 23 |
| Balmoral Ave. | 19 |
| Bedford Rd. | 33 |
| Chicora Ave. | 7 |
| Bain Ave | 4 |
| Logan Ave. | 4 |
| Danforth Ave. | 26 |
| Broadview Ave. | 45 |
| Avenue Rd. | 80 |
| Bernard Ave. | 32 |
| Prince Arthur Ave. | 20 |
| Dovercourt Rd. | 12 |

| Street. | No. of Poles. |
|---|---|
| St. Clarens Ave. | 30 |
| Withrow Ave. | 38 |
| Bowden St. | 1 |
| Boswell Ave. | 7 |
| Lowther Ave. | 20 |
| Dupont St. | 9 |
| Huron St. | 73 |
| Madison Ave. | 32 |
| Rusholme Rd. | 31 |
| Gladstone Ave. | 28 |
| Dewson St. | 4 |
| Sorauren Ave. | 44 |
| West Marion St. | 12 |
| Lucas St. | 17 |
| Roncesvalles Ave. | 58 |
| Wright Ave. | 11 |
| Fern Ave. | 11 |
| Garden Ave. | 15 |
| Pearson Ave. | 18 |
| Geoffrey St. | 15 |
| Wolfrey Ave. | 8 |
| Hogarth Ave. | 15 |
| Grandview Ave. | 3 |
| Hampton Ave. | 3 |
| Victor Ave. | 8 |
| Riverdale Ave. | 13 |
| Dearbourne St. | 6 |
| Lynd Ave. | 5 |
| Radford St. | 6 |
| Golden Ave. | 4 |
| Boustead Ave. | 7 |
| Indian Rd. | 18 |
| Alhambra Ave. | 5 |
| Ridout St. | 4 |
| Thorold St. | 3 |
| Howard Park Ave. | 16 |
| Indian Gr. | 3 |
| Total | 1,569 |

BELL TELEPHONE UNDERGROUND WORK FOR THE YEAR ENDING DECEMBER 31ST, 1909.

| | Conduit. | | Duct. | |
|---|---|---|---|---|
| | Ft. | In. | Ft. | In. |
| Branch, Mossop's Hotel | 14 | | 14 | |
| Branch, College and Havelock | 115 | | 230 | |
| Queen Street, King to Sunnyside | 1,296 | | 6,480 | |
| Branches, King to Sunnyside | 147 | | 441 | |
| Queen, McGee to Greenwoods | 5,553 | 6 | 35,539 | 6 |
| Branches, McGee to Greenwoods | 1,381 | | 2,866 | |
| Eastern Ave., McGee to the Don | 1,854 | 6 | 7,418 | |
| Branches, McGee to the Don | 383 | | 766 | |
| McGee, Queen to Eastern | 992 | | 3,968 | |
| Into Simpson's new building, Queen St. | 40 | | 77 | |
| Bernard and Avenue Road branches | 402 | | 552 | |
| Glen Road, Howard to Maple | 1,090 | | 3,270 | |
| Branches, Howard to Maple | 204 | | 435 | |
| Over Glen Road Bridge (iron) | 400 | | 1,200 | |
| Bloor, Bathurst to Christie | 1,975 | 6 | 16,073 | |
| Branches, Bathurst to Christie | 1,003 | | 2,006 | |
| Bay, King to Front | 980 | 4 | 5,605 | 2 |
| Branches, King to Front | 458 | 3 | 916 | 6 |
| Bernard and Kendal Avenue | 490 | | 980 | |
| Branches, Kendal Avenue | 785 | | 1,461 | |
| Branch, College N. on Givens | 58 | 6 | 117 | |
| Richmond, into World building | 100 | 6 | 201 | |
| Branch, College N. on Palmerston | 166 | | 332 | |
| Glen Road Upper Bridge (iron) | 644 | | 1,932 | |
| Rowanwood and Cluny Avenue | 297 | | 594 | |
| College, branch N. on Montrose | 170 | 9 | 341 | 6 |
| College, branch N. on Manning | 102 | | 204 | |
| Branch, Bank of Montreal, Queen and Yonge | 12 | 4 | 12 | 4 |
| Branch, Howard St. N. in lane | 53 | | 106 | |
| College W. from manhole at Markham | 185 | | 370 | |
| Adelaide St. into new exchange | 163 | 6 | 9,810 | |
| Branch Bank Nova Scotia, Melinda St | 44 | | 88 | |
| Keele St., Annette to Vine | 1,165 | 6 | 7,138 | |
| Branches, Annette to Vine | 494 | | 988 | |
| Annette, Medland to Dundas | 1,375 | 6 | 8,188 | 6 |
| Branches, Medland to Dundas | 265 | | 530 | |
| Wilson Place | 223 | 3 | 4,018 | 6 |
| Union, Wilson to Annette | 364 | | 6,188 | |
| Annette, Union to Willoughby | 982 | 6 | 16,702 | 6 |
| Royce, Dundas to Osler | 341 | 6 | 2,049 | |
| Branches, Dundas to Osler | 218 | | 436 | |
| Dundas, Willoughby to Bloor | 3,867 | 6 | 51,131 | |

| | Conduit. Ft. | In. | Duct. Ft. | In. |
|---|---|---|---|---|
| Branches, Willoughby to Bloor | 431 | | 1,022 | |
| Bloor, Dundas to Symington | 1,375 | | 11,940 | |
| Branches | 275 | 6 | 707 | |
| Totals | 32,938 | 11 | 215,445 | |

The following concrete manholes have also been constructed:

| | |
|---|---|
| Queen Street, King to Sunnyside | 3 |
| Queen Street, McGee to Greenwoods | 16 |
| Eastern Avenue, McGee to Don | 6 |
| McGee Street, Queen to Eastern | 1 |
| Glen Road, Howard to Maple | 5 |
| Bloor Street, Bathurst to Christie | 6 |
| Bay Street, King to Front | 4 |
| Bernard and Kendal | 3 |
| Rowanwood and Cluny | 1 |
| Adelaide Street, at new exchange | 1 |
| Keele Street, Annette to Vine | 3 |
| Annette Street, Medland to Dundas | 4 |
| Union and Annette | 1 |
| Annette and Willoughby | 3 |
| Dundas Street, Willoughby to Bloor | 11 |
| Royce Avenue, Dundas to Osler | 1 |
| Bloor Street, Dundas to Symington | 3 |
| | 72 |
| On Company's property, rear of new exchange at Temperance Street | 1 |
| Rear new exchange, Wilson Place | 1 |
| | 2 |
| | 74 |

TORONTO ELECTRIC LIGHT CO., UNDERGROUND CONDUIT CONSTRUCTION, 1909.

| | No. of Tile. | Lineal Ft. | In. | Conduit Ft. | In. |
|---|---|---|---|---|---|
| Bloor Street, under railway | 12 | 247 | | 2,964 | |
| Queen Street, into Simpson's building | 12 | 48 | 6 | 582 | |
| Colborne Street, Church to No. 71 | 12 | 171 | | 2,052 | |
| Colborne Street, Church to No. 71 (iron) | 1 | 11 | 10 | 11 | 10 |
| Richmond Street, Yonge to E. of Victoria | 2 | 393 | 4 | 786 | 6 |

| | No. of Tile. | Lineal Ft. | In. | Conduit. Ft. | In. |
|---|---|---|---|---|---|
| Teraulay Street, Alice to Queen | 24 | 1,109 | 3 | 26,622 | |
| Queen Street, Victoria to Dalhousie | 12 | 773 | | 9,276 | |
| Totals | | 2,753 | 11 | 42,294 | 4 |

PUBLIC CONVENIENCES.

The number of persons using the public conveniences during the year is as follows:

| | 1908. | 1909. |
|---|---|---|
| Yonge and Cottingham Streets | 97,973 | 58,302 |
| Queen Street and Spadina Avenue | 579,085 | 611,837 |
| Toronto and Adelaide Streets | 203,965 | 579,954 |
| Woman's Lavatory at Cottingham Street | 2,511 | 8,533 |
| | 883,534 | 1,258,626 |

An increase over 1908 of 375,092.

The large difference may be partly accounted for by the Toronto Street Lavatory being closed for repairs for 12 weeks during 1908, and the Women's Lavatory at Cottingham Street was only opened on September 10th, 1908. The daily average for the year—3448.2. The largest attendance during the week at Queen and Spadina Avenue was week ending August 8th, when 12,455 persons used the lavatory; at Yonge and Cottingham, week ending May 30th, 3,594; at Toronto and Adelaide, week ending March 14th, 14,055, and the Woman's Lavatory, for the month of September, 1,017.

A new combined men and women's lavatory is now under construction at the corner of Broadview Avenue and Queen Street, and will be open to the public early in 1910. The contractors for this work are Messrs. Wm. Forbes & Sons, the John Ritchie Plumbing Co., and Mr. Wm. Groeger. The total amount of the several contracts is $10,550.

NEWS BOYS' STREET STANDS.

At the meeting of the Works Committee held on the 29th of October, Mr. Jacob Cohen and S. Leitchman requested that permission be granted the street newsboys to erect small stands at the street corners to protect their newspapers from the weather. Permission was granted, and the question of the location of the stands was placed under the control of the City Engineer.

Stands have been placed at the following corners:—

North-east corner Yonge and King Streets—S. Leitchman.
South-east corner Queen and Yonge Streets—Harry Roher.
North-east corner Queen and Yonge Streets—A. Weinstein.
North-west corner Front and Yonge Streets—Sam Codesky.
North-west corner Front and York Streets—W. Frankel.
South-east corner Wilton Avenue and Yonge Street—Moses Seigel.
South-east corner Church and Carlton Streets—J. Berkovitch.
South-west corner Richmond and Yonge Streets—Issy Eeisen.
North-west corner Church and King Streets—Leo Cole.
South-west corner Yonge and Colborne Streets—Jack Codesky.
North-west corner King and Bay Streets—Harry Sapira.

Respectfully submitted.

J. D. SHIELDS,
*Assistant Engineer.*

# Main Drainage Work Report.

CITY ENGINEER'S DEPARTMENT,
Toronto, December 31st, 1909.

*C. H. Rust, Esq., City Engineer, Toronto:*

DEAR SIR,—I beg to present to you a report upon the work done by the Main Drainage Department for the year 1909.

The construction work on the High Level Interceptor was begun in May, and has progressed continuously throughout the rest of the year.

The total value of work done during the year in the construction of the High Level Interceptor was:

| | |
|---|---|
| Section No. 3 | $28,736 93 |
| Section No. 5 | 21,422 50 |
| Lands and rights-of-way purchased | 13,211 80 |
| Total | $63,371 23 |

The total value of contracts let during the year was:

| | |
|---|---|
| Section No. 3 (includes extra amount to cover cost of brick invert linings) | $141,262 00 |
| Section No. 4 | 91,589 00 |
| Section No. 5 | 132,860 50 |
| Total | $365,711 50 |

The total length of High Level Interceptor included in the above contracts is 17,113 feet, while the total length not yet under contract is about 13,000 feet.

In order that designing and constructing should proceed harmoniously and regularly, and at the same time maintain a staff which would not fluctuate too largely from time to time, the work of the Department has been arranged so that one or two sections at a time have been designed, and the contracts let as soon afterwards as possible. Immediately on

placing a contract, work was started preparatory to letting additional contracts. This process of planning, letting and building will necessarily have to continue during the construction of the entire system, which means that a force will be continually making plans, estimates and specifications for new work, while others are completing the contracts under way.

For the purpose of furnishing adequate engineering supervision for the construction work, field offices have been established and assistants located at the sites of the work in progress. These assistants report to the Resident Engineer, who has charge of the construction of the whole division.

The construction of the High Level Interceptor was commenced at the Don, and all the sewer west of that point is now under contract.

The plans and specifications for those sections east of the Don are well on towards completion. Construction has of necessity been postponed until certain lands required outside the City limits were purchased. This it was not possible to do until this month, when the district east of Woodbine Avenue above Queen Street was admitted into the City. The letting of these contracts will be proceeded with before the ensuing season begins.

The plans for the Low Level Interceptor are now being commenced with a view to letting a portion of the contracts on this sewer before next summer.

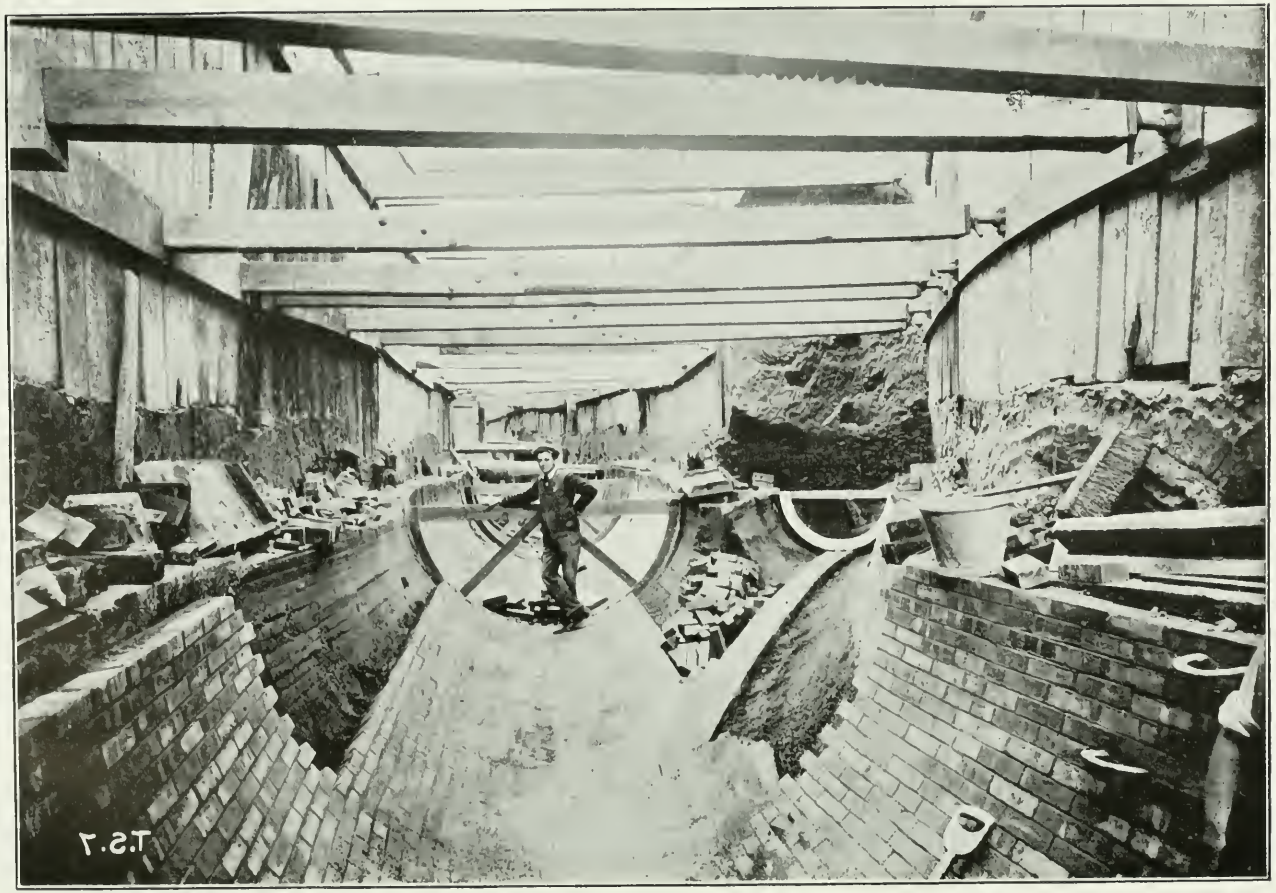
Excellent results have been secured in the bids received for work under contract, on account of extensive advertising, which has resulted in wide competition and a large saving to the City. The contracts have been awarded to competent contractors, with the result that the work, both as regards quality and progress, has been all that could be asked.

## HIGH LEVEL INTERCEPTOR.

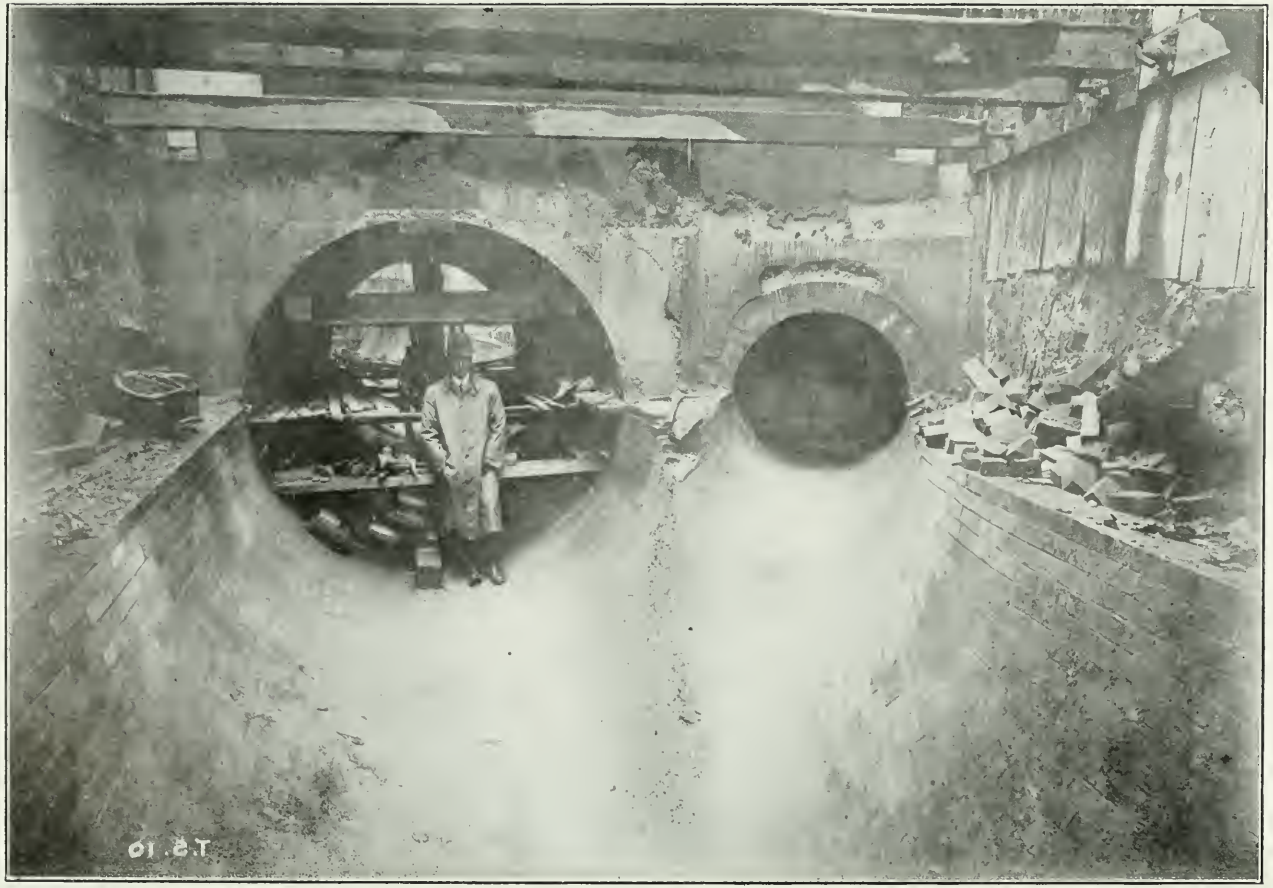
*W. Hollingworth, Resident Engineer.*

This sewer, varying in size between 6 ft. and 9 ft. 6 in. diameter, is circular in section and extends from the Garrison Creek sewer, near the corner of Queen Street and Gorevale Avenue, and runs through Stanley Park, along Defoe, Adelaide, Lombard, Duchess, Ontario, Sydenham, Sackville, St. David, Sumach, Wyatt and Mark Streets, crosses the Don River in the form of an inverted siphon, then runs along

High Level Interceptor, Completely Inverted—Section 3.



High Level Interceptor, Section 3—Rosedale Creek Connection, Photo 1.



High Level Interceptor, Section 3—Rosedale Creek Connection, Photo 2.

High Level Interceptor, Section 3—Rosedale Creek Connection, Photo 3.

Elliott, Whitby, Dickens, Dagmar and through various properties purchased for the right-of-way, to Morley Avenue, then along Morley and Queen to the property set apart for the disposal works.

For construction purposes this work has been divided into nine sections, of which sections 3, 4 and 5 form over half the total length.

The principal work in this division has been the construction of sections 3 and 5.

The amounts of the principal items of work done during the year are as follows, viz.:

| | |
|---|---|
| Excavation in open trench | 13,152 C. Y. |
| Excavation in tunnel | 2,466 C. Y. |
| Concrete masonry | 1,397 C. Y. |
| Brick masonry | 1,259 C. Y. |

The following is a brief statement of the more important facts in connection with the construction work:

### Section No. 3.

The Godson Contracting Co., contractors, Jarvis Street to the Don, 6,421 feet.

This section was advertised in November, 1908, as a concrete sewer, but the date for receiving bids was postponed until February 2nd, 1909, in order to obtain alternative bids on both brick and concrete construction. The lowest bids for this sewer were as follows:

| | |
|---|---|
| In concrete construction | $19 97 per foot run. |
| In brick construction | 33.13 per foot run. |

The adoption of concrete would have thus resulted in a saving over brick of $84,500, or with the modified form of concrete sewer with brick invert lining (actually adopted), a saving of about $72,000 on the section.

Upon the recommendation of Messrs. Watson & Hering, the concrete section was modified in March; this modification consisted in the substitution for the concrete invert, a composite form of concrete backing and a 4-inch ring of brickwork for the surface of the invert below the springing of the arch.

Preliminary work was started in April by the contractor, but the excavation for the main sewer was not commenced until May 28th, 1909.

The work of construction has moved forward continuously since that date. The contractor experienced considerable delay through experimenting with a new type of excavating machine. This has handicapped his progress throughout the year. The monthly progress is shown on Table 1. Some difficulty was met with in the settlement of several houses on Wyatt Avenue. The contractor has, however, now passed the most difficult and deepest ground, and has built the largest size sewer, and with the introduction of more machinery, his linear progress in the coming year should be much greater than in the past. The foundations for the sewer have been excellent throughout. The plant in use on the work includes 1 "Hadsel" excavating machine, 1 scraper machine, somewhat similar to the foregoing, 200 feet of Blaw collapsible steel forms, 12 steel cars, and 300 feet of track, 2 pumps, etc.

At River Street (corner Mark) a large bellmouth is formed of concrete with reinforced barrel roof to provide for the Rosedale Creek branch of the interceptor. At Sumach Street (corner Wyatt) the passing of the storm water is provided for by carrying it under the sewer through a cast-iron pipe as an inverted siphon.

Thus far, the sewer has been excavated wholly in open cut. The material excavated consists of about 8 feet in depth of dry yellow clay, and beneath this a heavy blue clay. No water of any account has been encountered, nor was rock reached, and the sewer has been constructed under the best of conditions. The concrete arch at one point was subjected to a splendid test for leakage through the bursting of a water main. No seepage whatever was discovered, although a new brick manhole shaft near by showed slight leakage in several places.

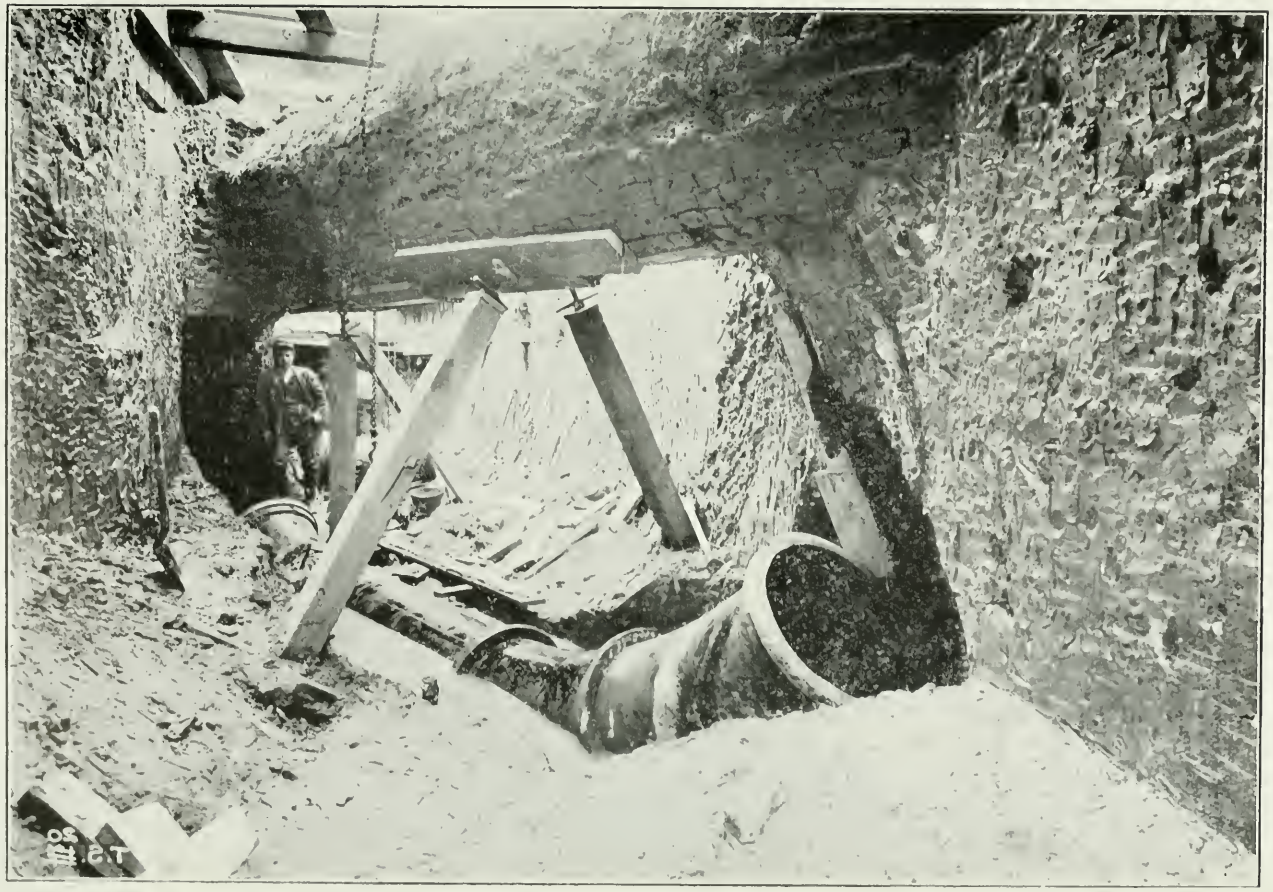
### Section No. 4.

John Wagner & Son, contractors, Simcoe to Jarvis Street, 4,211 feet.

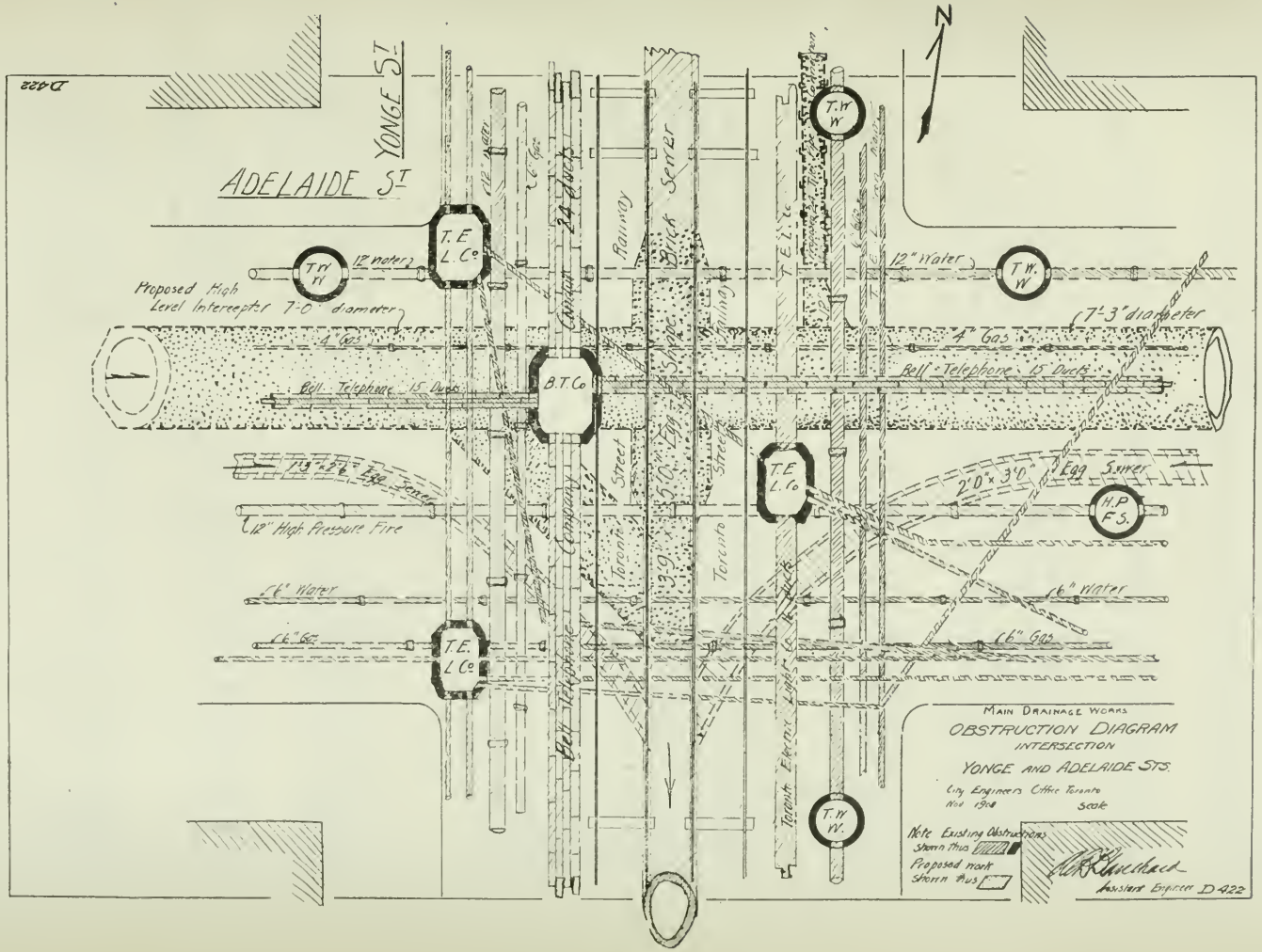
This section lies through the heart of the City, on Adelaide and Lombard Streets, between Simcoe and Jarvis.

The contracts for sections 4 and 5 were awarded to the same firm. The contractor has started operations on section 5; consequently no work has yet been done on section 4. The speed evidenced by contractor at section No. 5 warrants the assumption that section 4 can still be completed within time limit, even if started after section 5 is finished. The difficulties to be encountered in the way of underground obstructions on this section are well exemplified by the actual survey of the intersection of Adelaide and Yonge Streets. This illustration accompanies the report.

High Level Interceptor—Section 5.



High Level Interceptor—Typical Inverted Syphon.


N
YONGE ST.
ADELAIDE ST.
T.E. L.Co
T.W. W.
B.T.Co
12" water
Proposed High Level Intercepter 7'-0" diameter
4" Gas
Bell Telephone 15 Ducts
7'-3" diameter
Egg Telephone Conduit 24 Ducts
Railway
Brick Sewer
Toronto Street
3'9" Egg Sewer
T.E.L.Co
2'0" x 3'0" Egg Sewer
H.P.F.S.
12" High Pressure Fire
6" Water
6" Gas
Toronto Electric Light Co
MAIN DRAINAGE WORKS
OBSTRUCTION DIAGRAM
INTERSECTION
YONGE AND ADELAIDE STS.
City Engineers Office Toronto
Nov 1908
Scale
Note Existing Obstructions Shown thus
Proposed work Shown thus
Assistant Engineer
D 422

### Section No. 5.

John Wagner & Son, contractors. Garrison Creek sewer to Simcoe Street, 6,481 feet.

The contract for this section was awarded on June 9th, 1909. The sewer comprising this section is of circular shape, and ranges in size from 6 ft. to 6 ft. 6 in., and is to be built entirely in tunnel on account of its depth below the surface. This sewer is being built of brick. The contract price is $20.50 per linear foot.

The work of sinking shafts was begun on September 17th. Actual tunnel driving was commenced on October 1st. The monthly progress is shown in Table 1, and the substantial increase each month is most gratifying.

The work is moving forward with regularity, due to superior organization of the contractor's force, and no unforeseen obstacles have been encountered. The tunnel is being excavated through clays chiefly of the interglacial period. Several fine samples of trees were discovered. These trees were excellently preserved, although imbedded in the clay for upwards of 100,000 years. Very light shooting has been resorted to in the hardest ground, and has been found to greatly expedite the work while causing no damage to structures in the neighborhood. The tunnel is electric-lighted throughout, and the plant in use on the work includes 3 hoisting engines, 1,000 feet of industrial track, 9 trucks, 18 spoil buckets, 1 electric light plant, blacksmith shop, wiring, planks, etc.

### LOW LEVEL INTERCEPTOR.

As before stated, no contracts have yet been let on this sewer. Preliminary surveys have, however, been made, and with the levels obtained, the sewer has been definitely located. The route of the sewer will be as follows:

Beginning at the Garrison Creek sewer, just below King Street, and then by Walnut, Wellington Avenue, Niagara, Front to Trinity Street, and Eastern Avenue to the disposal works.

The Don is to be crossed by an inverted siphon of two lines of cast iron pipes. This sewer will be below lake level between Yonge Street and the disposal plant, at which latter point it will be 14 feet below mean low water.

As all the sewage reaching the plant by this sewer will of necessity require to be pumped over 20 feet to the level of the tanks, the sewer will require careful waterproofing to make it impervious. The sewer will be about 5 miles long, and range in size from 2 ft. 10 in. x 4 ft. 3 in., egg shape, to a 5-ft. 6-in. diameter circular.

## MISCELLANEOUS.

Besides the work chargeable to the appropriation for the intercepting sewers and disposal works, a number of miscellaneous surveys, plans, etc., were made by this Department, and actual construction has been carried on in connection with the building of the sea wall in front of the Exhibition Grounds and between Indian Road and the Humber River.

## SEA WALL.

Between Indian Road and the Humber River. Peter Arnot, contractor. Length 1,534 linear feet.

This work was started in the fall of 1908, but owing to the lateness of the season the contractor was able to get but 5 cribs in place. During the winter the building of cribs at the contractor's yard was proceeded with until all the cribs were built. Work was started at the site on the 25th of May and was pushed steadily forward throughout the season. Although the contract was not completed as soon as hoped for, the progress has been satisfactory, considering the exposed location of the work. The contractor was unfortunate in having forms, ready set for receiving concrete, carried away three times in succession, and this series of accidents was a considerable loss both in money and time.

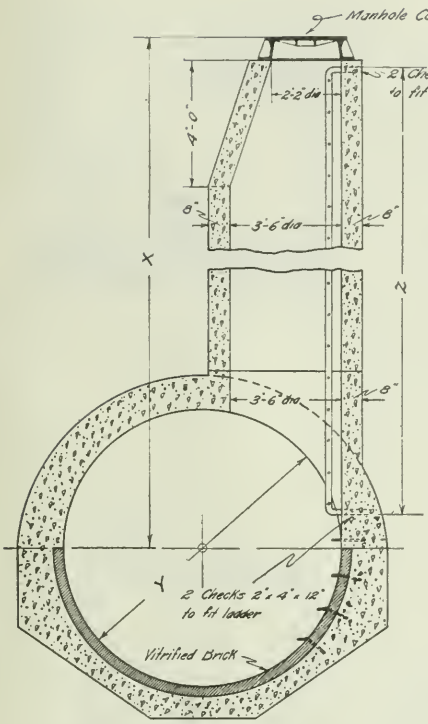
Work was drawn to a close on November 27th for the season.

There is now in position 1,386 linear feet of face cribwork, and 505 linear feet of concrete superstructure.

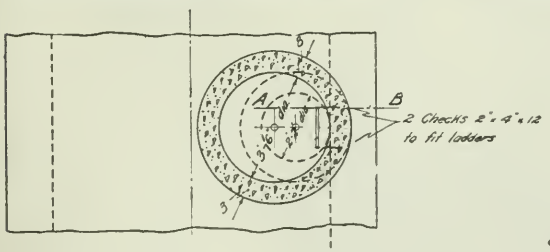
There has been placed in this work as above:—

18,089 lbs. iron.
2,722 C. Y. excavation.
408,520 f. b. m. timber.
1,835 C. Y. stone (crib filling).
712 C. Y. concrete.

| | |
|---|---|
| Total expenditure on contract ..... | $28,165 25 |
| Total expenditure on extras ..... | 161 24 |
| Total expenditure to date ..... | $28,326 49 |

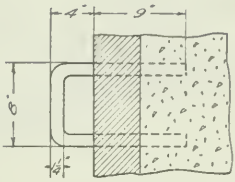



Section through Interceptor Manhole

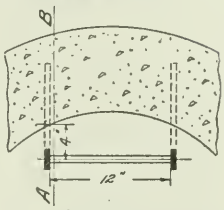



Plan

Note Step Irons are ½" x 1½" Galvanized Wrought Iron Flats 2'-8" long Bent to shape before galvanizing

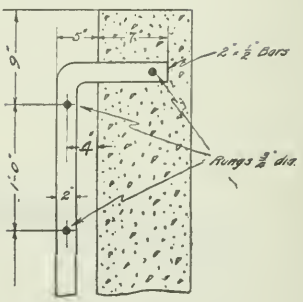



Detail of Step Iron




Detail Plan of Ladder

Note. Ladder of Wrought Iron flats 2" x ½" and ⅝" rounds galvanized




Detail of Ladder Section A-B

CITY OF TORONTO

MAIN DRAINAGE WORKS

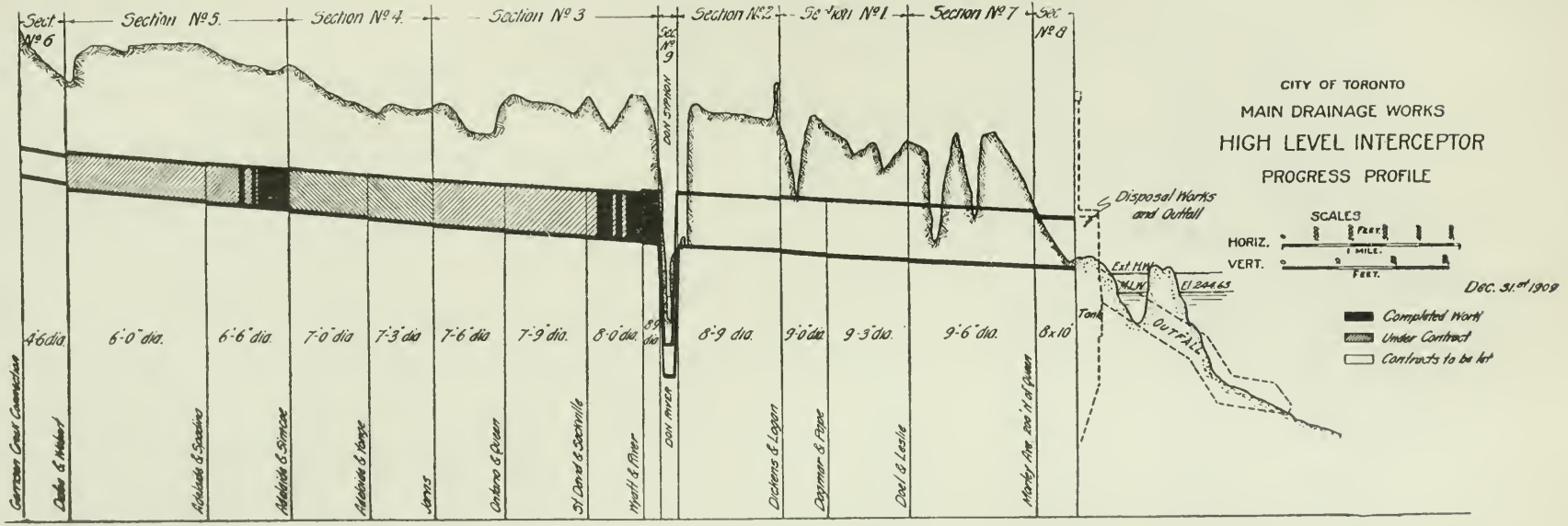
# HIGH LEVEL INTERCEPTOR

DETAILS OF STANDARD MANHOLES ?
AND COVERS FOR INTERCEPTOR

City Engineer's Office
Toronto Ont. March 15th, 1910

Assistant Engineer

City Engineer


Sect No 6
Section No 5.
Section No 4.
Section No 3
Sec No 9
Section No 2
Section No 1
Section No 7
Sec No 8
Disposal Works and Outfall
CITY OF TORONTO
MAIN DRAINAGE WORKS
HIGH LEVEL INTERCEPTOR
PROGRESS PROFILE
SCALES
HORIZ. 1 MILE.
VERT. FEET.
Dec. 31st 1909
Completed Work
Under Contract
Contracts to be let
Ext H.W.L.
W.L.N.
El 244.65
Tank
OUTFALL
4'6 dia.
6'-0" dia.
6'-6" dia.
7'-0" dia
7'-3" dia
7'-6" dia
7'-9" dia.
8'-0" dia.
8'-9 dia
8'-9 dia.
9'-0" dia
9'-3" dia.
9'-6" dia.
8'x10'
Garrison Creek Connection
Dale & Keele
Adelaide & Scarboro
Adelaide & Simcoe
Adelaide & Yonge
Jarvis
Ontario & Queen
St Clair & Sackville
Wyatt & River
Don River
Dickens & Logan
Caymor & Pape
Doel & Leslie
Morley Ave 200 ft at power

D. 449

Upon request, preliminary surveys and plans were made for the Bridge Department of the location of several structures included in the list of miscellaneous works.

Plans and estimates respecting track elevation affairs carried over from the preceding year were continued in this Department during the earlier portion of this year, and several surveys were made for other departments.

From an inspection of Table 2, which gives the distribution of pay-rolls, it will be seen that nearly one-fourth of the total expenditure in pay-rolls has been made on works outside the appropriation for the Main Drainage System.

Respectfully submitted.

A. C. D. BLANCHARD,
*Assistant Engineer.*

TABLE No. 1.

HIGH LEVEL INTERCEPTOR.

MONTHLY PROGRESS ON WORK UNDER CONSTRUCTION.

| Month. | Section No. 3. Ft. | Section No. 5. Ft. |
|---|---|---|
| June | .. | .. |
| July | .. | .. |
| August | 75 | .. |
| September | 280 | .. |
| October | 249 | 114 |
| November | 262 | 386 |
| December | 250 | 483 |
| Total .. | 1,116 | 983 |

TABLE No. 2.

DISTRIBUTION OF PAY-ROLL, 1909.

MAIN DRAINAGE WORKS.

| | | |
|---|---|---|
| High Level Interceptor, Section No. 1 | $160 75 | |
| " " " No. 2 | 508 50 | |
| " " " No. 3 | 2,679 23 | |
| " " " No. 4 | 523 85 | |
| " " " No. 5 | 1,656 79 | |
| " " " No. 6 | 69 50 | |
| " " Don siphon | 400 01 | |
| Gauging sewers | 136 00 | |
| Borings | 411 12 | |
| Office expense | 246 48 | |
| Miscellaneous engineering | 1,247 20 | |
| | | $8,039 43 |

OTHER WORKS.

| | | |
|---|---|---|
| Sea-wall | $1,001 32 | |
| Viaduct | 205 00 | |
| Wilton Avenue Bridge | 325 25 | |
| Dundas Street Bridge | 182 16 | |
| Harbord Street extension | 106 39 | |
| Eastern entrance—Exhibition | 144 59 | |
| Lavatories | 88 50 | |
| Ashbridge's Marsh survey | 165 50 | |
| Cattle Market survey (for Property Dept.) | 52 00 | |
| Electrical Dept. survey (borings made) | 71 86 | |
| | | 2,342 57 |
| Overhead charges and miscellaneous | | 2,272 66 |
| Total | | $12,654 66 |

CITY ENGINEER'S DEPARTMENT,
Toronto February 1st, 1910.

*C. H. Rust, Esq., City Engineer:—*

DEAR SIR,—I beg to submit herewith my report of work done during 1909:—

Surveys were made and a general plan prepared, with estimate of cost for a sewerage system for the recently annexed village of East Toronto. Copies of this plan are now on file in the Sewer Department.

Preliminary plans and profiles were prepared for the design of the low level sewer. Later in the year the design of the low level sewer was turned over to Mr. Blanchard.

During July, August and September extensive observations were taken of the currents in Lake Ontario in the vicinity of the new sewer outlet. These experiments were reported on separately.

As a result of the visit of Messrs. Hering and Watson, in March, the plans for the sewage tanks were discarded and a new design adopted. Tenders are now being received for the construction of these new tanks.

An experimental tank similar to that recommended by Mr. Watson, except that the bottom slope was built at 30 degrees instead of 45 degrees, was constructed close to the Woodbine septic tanks. A special report on this tank is attached, as is also a report on a bearing test made on the disposal works site.

With the permission of the Board of Control, we purchased a launch in July. This is now in the boat house, foot of Woodward Avenue, for the winter. It was used for sounding and current measurements in the lake.

Tenders were received until November 16th for the supply of steel pipe (contract No. 1), and for concrete pipe (contract No. 2), as follows:—

STEEL PIPE.

| | | | | |
|---|---|---|---|---|
| Canada Foundry Co., Toronto | $41,000 & | $11 93 | extra per ft. | |
| Polson Iron Works, Toronto | 56,630 & | 16 70 | " | " |
| Riter-Conley Co., Pittsburg, Pa | 56,530 & | 16 56 | " | " |
| Millwall Boiler Works, London, Eng | 57,600 & | 17 00 | " | " |
| John Inglis Co., Toronto | 48,152 & | 14 10 | " | " |

CONCRETE PIPE.

| | | | | |
|---|---|---|---|---|
| Lock Joint Pipe Co., New York ..... | $21,564 20 | & | $12 10 | extra per ft. |
| H. D. Robertson, Toronto ..... | 21,500 00 | & | 12 00 | " " |
| E. W. Hyde, Jr., Toronto ..... | 18,855 00 | & | 10 00 | " " |

The Board of Control recommended the acceptance of the tenders of the Canada Foundry Co. and E. W. Hyde, Jr., on November 22nd, 1909.

Tenders will be received until February 15th, 1910, for the following:—

Contract No. 3—Laying sewer outlet.
" No. 4—Building disposal tanks.
" No. 5—Iron castings.
" No. 6—Structural steel.
" No. 7—Sludge valves, penstocks and pedestals.
" No. 8—Cast iron pipe
" No. 9—Cranes.
" No.10—Tile weirs.

Specifications and plans for these are on file in London, England, and Glasgow, Scotland.

Specifications for centrifugal pumps and gas engines, required in the sewage pumping station, have been prepared.

Sketch plans of the building required for the pumping station have also been prepared, but working drawings have not yet been commenced.

No actual construction of any kind has yet been done on the sewage disposal works, but we expect to be kept busy during 1910, as there will be over thirty-two contracts to be looked after in connection with this work.

Respectfully submitted.

F. W. THOROLD,
*Assistant Engineer.*

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CITY ENGINEER'S DEPARTMENT,
Toronto, January 27th, 1910.

*Mr. F. W. Thorold, Assistant Engineer:—*

DEAR SIR,—On May 31st I was directed by you to prepare plans for an experimental sedimentation tank and to superintend the building of

the same. The plans as accepted provided for a wooden tank with inside measurements of 12 ft. 5 in. x 12 ft. 5 in. at the top. There was a 4-ft. vertical wall making a rectangular box 4 ft. x 12 ft. 5 in. x 12 ft. 5 in. This box was placed above a rectangular pyramid, the sides of which sloped at 30 degrees to the horizontal. A wrought iron inlet pipe was brought in one side and bent downward in the centre, and a 5-in. wrought iron sludge pipe provided at the bottom. A 6-in. brass outlet weir (procured from the U. of T.) was let in one side and a hook gauge placed where it could be conveniently read, and about 6 feet from the weir. In all respects the tank was similar to the large proposed tanks save for the slope of the sides of the pyramid; this was made at 30 degrees to ascertain whether the sludge would slip on that slope or not. A baffle was also placed within about 1½ feet of the weir and extending 2 feet below the surface. This baffle was made so that it could be raised or lowered as desired, and it extended the full width of the tank. The overflow was carried by a tile drain back to the pump well.

Some delay in obtaining carpenters was experienced. When the tank was finally built it was pitched inside on all the seams, and then lowered so as to be low enough to allow of siphoning the crude sewage from the inlet channel of the Woodbine septic tanks near which it was necessarily placed. The lowering was accomplished by excavating the sand from beneath the frame and allowing it to settle.

When first filled it leaked very badly, due to a slight deflection in the walls. Canvas was tacked over these places and pitched, and two tie rods placed inside to prevent further deflection. After this there was very little leakage.

Trouble was also experienced in siphoning, due to air in the sewage from the pumps, and also from minute leaks in the rubber suction hose. This was remedied by substituting wrought iron pipe for the hose, except for about 4 feet at the end, which was given a coat of white lead. An air receiver was also placed at the highest point of the siphon, which allowed the siphon to be kept full. When finally arranged, no difficulty was experienced. A fall of about 8 inches was allowed. This fall varied, depending on the level of the crude sewage in the septic tank channel, and the head on the weir necessary to give the required flow which was varied from ¼, ½, 1, 1½, 2, 3 and 4-hour flow. The level was kept constant by a 4-in. gate valve in the inlet pipe.

Due to the fact that the work on the tank was not carried on steadily, the tank did not work satisfactorily till July 23rd.

Samples of crude sewage and the effluent were taken and delivered to Dr. Pyne. The samples were taken with ½, 1, 1½, 2, 3 and 4-hour flows, with the baffle up and with it down. Dr. Pyne spoiled the samples by mixing them with some for Commissioner Harris and examining for the wrong thing.

Later samples were taken with ½, 1, 1½, 2 and 4-hour flows, with the baffle down. A 15-minute flow could not be reached owing to lack of head on the siphon.

It was found that a better effluent was obtained with the baffle down, as it stopped whatever grease and scum was floating.

The slope of the sides of the pyramid was found to be insufficient, as the liquid had to be lowered till it reached the sludge before the latter slipped, when it kept even with the surface of the liquid, lowering at the same rate.

It took about a week for septic action to get well started the first time. After emptying the tank it would take only three or four days for septic actions to start pretty well again.

All the sludge could not be run out, as the level of the water in the marsh prevented this, leaving about a foot in the point of the pyramid. About 2 to 4 inches of sludge would be deposited on the upper part of the sides of the pyramid in 3 or 4 days. At the bottom there was usually considerable sand and more sludge. The sand was never found above a 1½ from the bottom.

When emptied every 2 or 3 days the sludge was grey and had no very bad odor. A large number of wrigglers were observed in the sludge, especially if septic action had started when the sludge was black with a bad odor.

There seemed to be practically no velocity in 4 or 3-hour flow, and what there was seemed to be circular and in the same direction as the hands of a clock. The samples of effluent gave no odor, and were clear and slightly opalescent. On settling for an hour or more they showed less sediment by a good ½ than effluents from the Woodbine septic tanks. The latter effluents were very good samples, according to the caretaker. The results from the second set of samples taken were very unsatisfactory, showing a larger amount of solids in the effluent than in the crude sewage, which seemed rather absurd, both because solids were deposited in the tank and because there was a noticeable difference with the naked

eye. With ½, 1 and 1½-hour flows, little sedimentation was observed, the best period seeming to be 3 hours.

In taking samples the effluent was run into a clean bottle at the weir, and the crude sewage was dipped from the inlet channels in a small cup. The taking extended over ½ hour, a small amount being taken at different intervals. On Mondays the effluent was not so good, appearing soapy.

When experiments were finished the tank was taken apart. The wrought iron pipe was taken to the press house and the lumber was taken to the east end office.

The above is respectfully submitted by

Your faithful servant,

(Signed.) DEAN WILKES.

# Toronto Hydro-Electric System.

CITY ENGINEER'S OFFICE,
Toronto, February 18th, 1910.

*C. H. Rust, Esq., City Engineer, City Hall:*

DEAR SIR,—I herewith submit the Annual Report of this Department for the year ending December 31st, 1909:

## DESIGNS COMPLETED.

1. System of power distribution.
2. System of light distribution.
3. Switching system for Terminal Station.
4. System of high tension rings, trunks, and ties, by means of which current will be taken from the Terminal Station to the various sub-stations.
5. System of sub-station switching, covering all incoming rings, trunks and ties and all outgoing feeders.
6. System of low tension distribution.
7. Layout of Nelson Street sub-station.
8. Layout of St. Lawrence Market sub-station.

## DESIGNS PARTIALLY COMPLETED.

1. Street lighting system.
2. Junction sub-station.
3. Main Water Works sub-station.
4. High level sub-station.

## SPECIFICATIONS PREPARED AND ISSUED.

1. Three-core cable.
2. Conduit.
3. Conduit laying.
4. Electrical pumping equipment.
5. Wire.
6. Pole-line supplies.

## CONTRACTS AWARDED.

1. *Cable.*—A contract amounting to approximately $50,000 has been awarded for cable to the British Insulated and Helsby Cables, Ltd.

2. *Conduit.*—A contract amounting to approximately $18,000 has been awarded to the American Sewer Pipe Co.

3. *Conduit Laying.*—A contract for conduit laying, amounting to approximately $56,000, has been awarded to Golden & Lansing.

4. *Electrical Pumping Equipment.*—A contract amounting to approximately $107,000 has been awarded to the Canadian Westinghouse Co.

5. *Wire.*—A contract amounting to approximately $15,000 has been awarded to the Wire and Cable Co. for aluminum cable.

6. *Wire.*—A contract for copper wire, amounting to approximately $6,000, has been awarded to the Canadian General Electric Co.

7. *Pole Line Supplies.*—A contract for pole line supplies, amounting to approximately $7,000, has been awarded to Brazill & Co.

8. *Pole Line Supplies.*—A contract for pole line supplies, amounting to approximately $23,000, has been awarded to Factory Products, Ltd.

9. *Pole Line Supplies.*—A contract for pole line supplies, amounting to approximately $1,493, has been awarded to the Northern Electric and Manufacturing Co., Ltd.

## SPECIFICATIONS UNDER PREPARATION.

1. Transformers.
2. Oil switches.
3. Special brick.
4. Conduit work for Terminal Station.

NOTE.—The above specifications are practically complete, and will be issued during the early part of 1910. Specifications for three-core cable, to be used during 1910, will also be re-issued during the early part of the year.

## SPECIFICATIONS NOT PREPARED.

1. Switchboard panels.

NOTE.—The above specification is the last of the main specifications which this Department will issue. Several smaller specifications for incidental supplies will be prepared and sent out from time to time as the progress of the work warrants.

## SUB-STATION LOCATION.

Sub-stations are being located, so far as possible, on property now owned by the City. Where property is to be purchased, this is being arranged on the most favorable terms. A plot 50 x 80 at the corner of Duncan and Nelson Streets has been obtained, partially by negotiation and partially by expropriation, for $9,000.

## CONSTRUCTION WORK.

1. *Conduit.*—360,000 feet of conduit have been inspected and delivered in Toronto for use in connection with the contract for conduit laying.

2. *Conduit Laying.*—The contractors for conduit laying stopped work for the winter on December 24th, having laid up to that date 201,932 duct feet of conduit, with 39 manholes and service boxes to correspond.

3. *Cable.*—There has been drawn into the conduit a total of 16,907 feet of No. 3/0 three-core, 13,200 volt cable.

4. *Wire.*—Wire and Cable Co. contract. About 50 per cent. of the aluminum wire covered by this contract has been shipped to us.

5. *Wire.*—Canadian General Electric Co. contract. The entire quantity of wire covered by this contract has been forwarded to the City.

6. *Pole Line Supplies.*—Shipments are now being made under the contracts with Brazill & Co. and Factory Products, Ltd.

7. The entire equipment of outside lines belonging to the East Toronto plant has been overhauled, repaired and put in shape for the use of the Hydro-Electric power. New transformers have been erected, and lines have been extended to take care of the many new customers obtained. The hours of service, which formerly were from dusk to

midnight, have been changed to from dusk till 10 a.m. A 24-hour service will be given as soon as power is obtained from the Commission.

8. The West Toronto street lighting system has been operated by us since annexation.

## COMMERCIAL WORK.

Rate Schedules A and B, covering primary power service and residence lighting, respectively, have been prepared and issued. A contract department has been organized, which is calling on prospective consumers, looking after enquiries, and developing Rate Schedules C and D, which will cover general power and commercial lighting respectively. We are also developing the various contract and other forms which will be required for operation.

## CONCLUSION.

Taken as a whole, our work has progressed favorably, and we will be in a position to handle the electric current when it is supplied us by the Commission. At that time we will be able to deliver power through the factory districts, and by December 31st, 1910, all sub-stations will be complete and in operation, and all lines will be in such shape that power and light can be supplied at short notice at any point within the City limits. Further, the street lighting system will have been completed so that this work can be taken over by this Department on the expiration of the present contract.

Respectfully submitted.

ELECTRICAL DEPARTMENT:
K. L. AITKEN.

# Accountant's Statement of Expenditure for 1909

| ACCOUNTS. | $ c. | $ c | $ c. |
|---|---|---|---|
| GENERAL WORKS. | | | |
| Asphalt repairs | 18,491 41 | | |
| Bridges, repairs and maintenance | 14,162 35 | | |
| Dredging slips | 5,377 67 | | |
| Engineering and expenses..$60,532 71 | | | |
| Less transfers credited. 24,084 23 | | | |
| | 36,448 48 | | |
| Esplanade, docks, wharves, etc. | 4,245 64 | | |
| Express and cabmen's shelter | 53 86 | | |
| General purposes .....$26,784 29 | | | |
| Water for flushing .... 10,000 00 | | | |
| | 36,784 29 | | |
| Level crossings | 7,965 40 | | |
| Maintenance of lavatories | 5,010 56 | | |
| Permanent crossings | 4,115 73 | | |
| Private drains | 73,665 80 | | |
| Roadways | 70,895 15 | | |
| Sidewalks | 19,324 28 | | |
| Sand pump No. 1—maintenance | 8,752 53 | | |
| Sand pump No. 2—maintenance | 13,517 71 | | |
| Sand pump No. 3—maintenance | 12,132 86 | | |
| Snow cleaning crossings and channelling | 16,396 49 | | |
| Stone for House of Industry | 1,368 21 | | |
| Street tablets house numbers | 2,881 71 | | |
| Track repairs | 94,587 87 | | |
| Tug "National," maintenance | 3,464 65 | | |
| Weed cutting | 1,373 79 | | |
| | 451,016 44 | | |
| Less amount paid Treasurer for private drains | 82,676 75 | | |
| | | 368,339 69 | |
| SPECIAL WORKS. | | | |
| Concrete mixer | 1,582 71 | | |
| Dovercourt Road relief sewer | 1,739 47 | | |
| *Carried forward* | 3,322 18 | 368,339 69 | |

| ACCOUNTS. | $ c. | $ c. | $ c. |
|---|---|---|---|
| *Brought forward* ..... | 3,322 18 | 368,339 69 | |
| Dundas St. Bridge widening ..... | 17,207 76 | | |
| Electric Power Distribution Plan .... | 83,551 13 | | |
| Jones Avenue concrete culvert ..... | 6 00 | | |
| Lakeshore Road rubble wall ..... | 30 50 | | |
| Lansdowne Avenue subway ..... | 60,286 25 | | |
| Leslie Street sewer ..... | 694 95 | | |
| New public lavatory, Broadview and Queen ..... | 455 38 | | |
| New yard, Delaney Crescent ..... | 537 95 | | |
| Princess Street yard ..... | 1,708 11 | | |
| Rosedale Creek sewer ..... | 11,734 97 | | |
| Sea wall—Exhibition ..... | 12,350 65 | | |
| Sea wall—Indian Road-Humber ..... | 13,568 11 | | |
| Sidewalks opposite City property— | | | |
| Antler Ave., s.s., Perth to Franklin. | 206 64 | | |
| Augusta St., w.s., Denison to Bellview ..... | 2 50 | | |
| Broadview Ave., w.s., 1,039 ft. n. Gerrard to 750 ft. n. ..... | 636 08 | | |
| Broadview Ave., w.s., 29 ft. n. Gerrard to 11 ft. n. ..... | 18 04 | | |
| Dufferin St., opposite Kent school .. | 5 86 | | |
| Duke St., s.s., boulevard, James and George ..... | 366 86 | | |
| Havelock St., w.s., opp. Dufferin Pk. | 264 10 | | |
| King St., n.s., opp. Stanley Park ... | 239 01 | | |
| St. Patrick St., s.s., opp. Ryerson School ..... | 271 29 | | |
| Wooden walks— | | | |
| Crawford St., e.s., College to 1,050 ft. north ..... | 367 16 | | |
| Lee Ave., n.s., pres. term. to Kingston ..... | 152 58 | | |
| Curbs— | | | |
| Franklin Ave., w.s., Edith to North. | 135 05 | | |
| Clarence Sq., s., n. and w.s..... | 384 72 | | |
| Shaftesbury Ave., s.s., Ottawa to Summerhill ..... | 254 77 | | |
| Street Railway matters ..... | 1,030 48 | | |
| Snow cleaning sidewalk ..... | 9,055 95 | | |
| Trunk sewer ..... | 115,663 67 | | |
| Viaduct, etc. ..... | 9,160 73 | | |
| Wilton Avenue bridge ..... | 2,983 19 | | |
| Winchester Street bridge repairs .... | 3,259 25 | | |
| York Street bridge, paving east ramp. | 232 11 | | |
| | | 350,116 98 | |
| *Carried forward* ..... | ... .... | 718,456 67 | |

| ACCOUNTS. | $ c. | $ c. | $ c. |
|---|---|---|---|
| *Brought forward* ..... | .... .... | 718,456 67 | |
| ISLAND COMMITTEE WORKS. | | | |
| *Under the charge of the City Engineer.* | | | |
| Bridge repairs ..... | 259 54 | | |
| Channel, east of Chippewa Avenue .. | 748 75 | | |
| Concrete walk—Hanlan's to Hebers... | 730 26 | | |
| Ferry wharf—Center Island ..... | 562 84 | | |
| Island water works ..... | 4,774 55 | | |
| New engine, Island pumping station.. | 356 50 | | |
| Sidewalks, bicycle path, etc. ..... | 1,252 26 | | |
| Turner's bath bridge, repairs ..... | 462 28 | | |
| Wharf repairs ..... | 454 18 | | |
| | | 9,601 16 | |
| LOCAL IMPROVEMENT WORKS. | | | |
| Pavements ..... | 677,556 01 | | |
| Curbs ..... | 12,774 37 | | |
| Sidewalks ..... | 234,852 78 | | |
| Sewers ..... | 89,061 14 | | |
| Street openings, gradings, etc. ..... | 151,163 63 | | |
| Railway pavements and reconstruction of track allowance ..... | 174,810 82 | | |
| | | 1,340,218 75 | |
| | | | 2,068,276 58 |

Respectfully submitted,

WM. McCARTNEY,
*Accountant.*

| ACCOUNTS. | $ c. | $ c. | $ c. |
|---|---|---|---|
| WATER WORKS BRANCH. | | | |
| *Maintenance.* | | | |
| Maintenance and distribution | 54,055 28 | | |
| Main pumping station | 57,835 56 | | |
| Main pumping station, coal | 55,587 50 | | |
| Meter and machine shop | 15,412 25 | | |
| Store house | 2,343 59 | | |
| Hydrants and valves | 8,933 51 | | |
| Cartage | 8,434 38 | | |
| High Level station | 30,379 19 | | |
| Reservoir | 7,344 09 | | |
| High pressure fire system, maintenance | 3,311 66 | | |
| East Toronto water works | 9,671 42 | | |
| West Toronto Water Works | 7,860 41 | | |
| | | 261,168 84 | |
| *Construction.* | | | |
| House services $90,023 01 | | | |
| Less credits paid Treasurer 15,449 22 | | | |
| | | 74,573 79 | |
| *Renewals.* | | | |
| House services | 4,734 27 | | |
| Short lengths, extra fire hydrants | 1,973 95 | | |
| | | 6,708 22 | |
| *Special Services.* | | | |
| Electrical Pumps By-law 5332 | 921 02 | | |
| High Level station, new engine No. 3. | 1,052 86 | | |
| High Level station, new engine No. 4. | 34,944 61 | | |
| High pressure fire system, construction | 23,947 80 | | |
| Main pumping station, new engine No. 7 | 72,422 07 | | |
| New meters under By-law 4982 | 23,789 17 | | |
| Pipe cutting machine | 500 00 | | |
| Tunnel connections | 27,422 01 | | |
| Water filtration | 88,222 41 | | |
| *Under By-law 4982.* | | | |
| 20-in. main, Bathurst to Roncesvalles | 2,170 32 | | |
| 20-in. and 16-in. main, St. George St. westerly | 4,431 35 | | |
| 16-in. & 12-in. main, through Rosedale | 332 22 | | |
| *Carried forward* | 280,155 84 | 342,450 85 | |

| ACCOUNTS. | $ c. | $ c. | $ c. |
|---|---|---|---|
| *Brought forward* ..... | 280,155 84 | 342,450 85 | |
| 12-in. main, Roncesvalles, Queen to Dundas ..... | 903 66 | | |
| 12-in. main, Lansdowne, Queen to Rideau ..... | 297 67 | | |
| 12-in. main, Queen, Broadview to Leslie | 320 94 | | |
| 12-in. main, Danforth, Broadview to e. City limits ..... | 443 69 | | |
| 12-in. main, Symington, Bloor to Royce | 177 16 | | |
| 12-in. main, Queen, Kingston to e. City limits ..... | 358 86 | | |
| 12-in. main, Gerrard, Leslie to e. City limits ..... | 84 77 | | |
| 8-in. main, Exhibition grounds ..... | 47 08 | | |
| 6-in. main, Arthur St. and Shaw connections ..... | 30 71 | | |
| 6-in. main, Greenwoods, Danforth to 470 ft. s. ..... | 16 15 | | |
| 6-in. main, Kippendavie, Queen to 700 ft. s. ..... | 21 42 | | |
| 6-in. main, Galt Ave., Gerrard to 850 ft. n. ..... | 29 32 | | |
| 6-in. main, Byron Ave., Danforth to Chatham ..... | 12 26 | | |
| 6-in. main, Chatham, Byron to Greenwoods ..... | 26 82 | | |
| 6-in. main, Harbord, Bathurst to Clinton ..... | 172 96 | | |
| 6-in. main, Boswell Ave., 850 ft. e. Bedford Avenue ..... | 63 91 | | |
| 6-in. main, Lowther Ave., Bedford Ave. | 60 68 | | |
| 6-in. main, Berryman St., Davenport Ave. ..... | 64 62 | | |
| 6-in. main, John St., King to Queen .. | 108 52 | | |
| 6-in. main, Pearl St., Duncan to John | 52 84 | | |
| 6-in. main, Pearl St., Simcoe to 225 ft. west ..... ..... | 42 73 | | |
| 6-in. main, Don Esplanade, King to 400 ft. s. ..... | 167 40 | | |
| 6-in. main, through Parkdale ..... | 800 27 | | |
| Cutting in additional valves ..... | 127 92 | | |
| Dead ends ..... | 5,170 46 | | |
| *Under By-law 4357.* | | | |
| Ruskin Ave., connections at ..... | 54 30 | | |
| *Carried forward* ..... | 289,812 96 | 342,450 85 | |

| ACCOUNTS. | $ c. | $ c. | $ c. |
|---|---|---|---|
| *Brought forward* ..... | 289,812 96 | 342,450 85 | |
| *Under By-law 5332.* | | | |
| 16-inch main, Dundas St. ..... | 3,258 18 | | |
| 12-in. main, Annette St. ..... | 5,365 03 | | |
| 12-in. main, Christie St., St. Clair Ave. to Davenport ..... | 7,081 63 | | |
| 12-in. and 6-in. main, St. Clair Ave. and Spadina Rd. ..... | 20,272 38 | | |
| *Special Mains.* | | | |
| Davenport and Poplar Plains Road .. | 1,962 83 | | |
| 6-in. main, Hazlewood, Jones to 350 ft. west ..... | 435 69 | | |
| Hogarth Ave., fire main ..... | 2,233 09 | | |
| Lovatt Place, fire main ..... | 33 08 | | |
| Mowat Ave., 6-in. main, 407 ft. s. King to 420 ft. further s. ..... | 411 73 | | |
| Queen St., 12-in. main, Beach to Howard ..... | 2,548 44 | | |
| Sunnyside Orphanage ..... | 47 84 | | |
| Sunnyside Ave., Howard Park Ave. to Marmaduke ..... | 392 44 | | |
| Toronto University, special main ..... | 48 50 | | |
| *Paid Mains.* | | | |
| 6-in. paid mains, Balmoral Ave., e. City limits to 110 ft. e. ..... | 3 55 | | |
| 6-in. paid mains, Clinton St., 600 ft. e. City limits to 300 ft. fur. e. ..... | 11 52 | | |
| 6-in. paid mains, Farnham Ave., e. City limits to 100 ft. e. ..... | 3 52 | | |
| | | 333,922 41 | |
| *Revenue Mains* ..... | ..... | 61,131 24 | |
| | | | 737,504 50 |

Respectfully submitted,

WM. McCARTNEY,
*Accountant.*

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Toronto. Dept. of Public Works
Report of the city engineer

Engineering